XPOWER DC INVERTER

Carrier
United Technologies
turn to the experts

Variable Refrigerant Flow Systems

*Preliminary data

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WEATHERMAKERS
TO THE WORLD

Built on Willis Carrier's invention of modern air-conditioning in 1902, Carrier is the world leader in heating, air-conditioning and refrigeration solutions. Carrier constantly builds upon its history of proven innovation with new products and services that improve global comfort and efficiency.

The Invention That Changed the World

In 1902, Willis Carrier solved one of mankind's most elusive challenges by controlling the indoor environment through modern air-conditioning. His invention enabled countless industries, promoting global productivity, health and personal comfort.

Today, Carrier innovations are found across the globe and in virtually every facet of daily life. Carrier creates comfortable and productive environments, regardless of the climate, safeguards the global food supply by preserving the quality and freshness of food and beverages, ensures health and well-being by enabling the proper transport and delivery of vital medical supplies under exacting conditions and provides solutions, services and education to lead the green building movement.

These mark just a handful of the ways that Carrier works to make the world a better place to live, work and play.

Carrier

United Technologies

turn to the experts

Carrier delivers global solutions across a broad range of applications in heating, air-conditioning, refrigeration and beyond.

Home Comfort

Millions of people trust Carrier's leadership and expertise in delivering efficient solutions for their home heating and cooling needs.

Building Solutions

Setting the standard for performance, energy efficiency and sustainability, Carrier offers solutions in air-conditioning, building controls and energy services for the building lifecycle.

Transport Refrigeration

Carrier transport refrigeration equipment, cold chain monitoring solutions and replacement components ensure the safe, reliable transport of food and beverages, medical supplies and other perishable cargo to people and businesses around the world.

Commercial Refrigeration

Serving the beverage, food service and food retail industries, Carrier's refrigeration solutions are built on next-generation technologies to preserve freshness, ensure safety and enhance appearances of global food and beverage retail.

Natural Leadership

From the very beginning, Carrier has been a natural leader. Not simply for the fact that Carrier creates an entirely new and innovative products, but because Carrier sets the standard in environmental responsibility. Since 1994, Carrier has led the industry in the phase-out of ozone-depleting refrigerants while introducing many of the world's most energy-efficient heating, air-conditioning and refrigeration systems.

Preservation of the environment and protecting our world's finite natural resources is a central tenet of Carrier's business as it recognizes the vital importance of maintaining a responsible balance between the comfort we create today and the world we live in tomorrow.

COMMITMENT

Green products start at a green company. At Carrier, environmental stewardship is a core value that is reflected daily in its products, services and operations, and in the culture of the whole enterprise.

Carrier's comprehensive environment, health and safety program has been in effect for more than 20 years. That is why Carrier has been able to achieve milestones like reducing its greenhouse gas emissions by 35 percent and water usage by 27 percent on an absolute basis from 2006 to 2011. Never resting on its accomplishments, Carrier has three factories certified by the U.S. Green Building Council® under the LEED® rating system.

LEADERSHIP

From the very beginning, Carrier has been a natural leader. With the invention of modern air-conditioning, Carrier set the standard for the industry it created.

Willis Carrier was a sustainability leader. Utilizing precise cooling processes, his invention enabled countless industries to avoid waste and preserve resources for future generations. Today, preservation of the environment and protecting the finite natural resources remains a central tenet of Carrier's business.

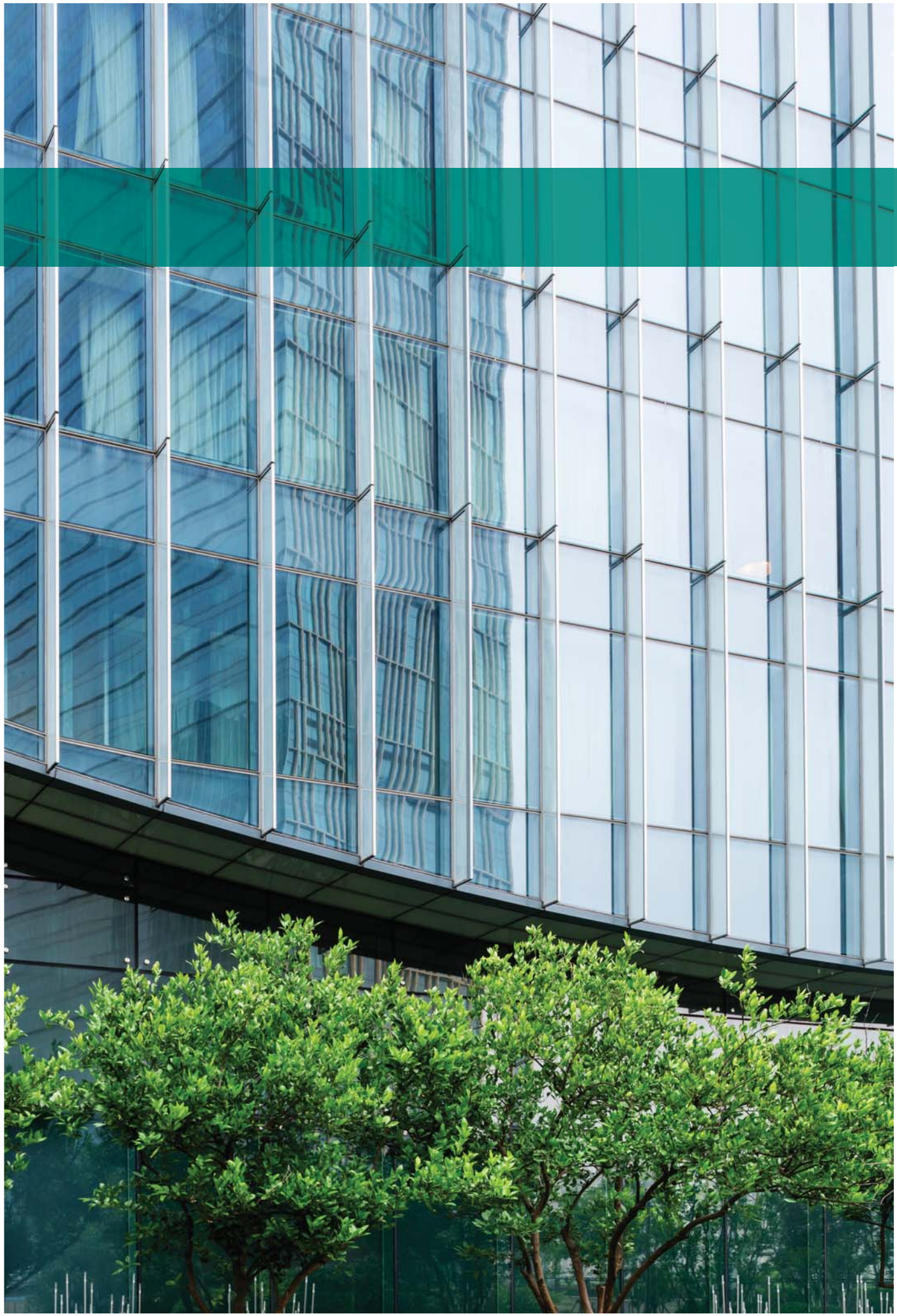
Improve sustainable solutions

INNOVATION

Carrier products turn energy into useful work. Carrier invests research and creates products that consume fewer resources and produce fewer emissions.
Carrier, nearly in every category, offers industry-leading, energy-efficient options for the customers. Carrier continues to invest in research and development, applying the newest technological innovations to create ever more sustainable solutions.

IMPROVE

Through innovations in design and manufacturing, Carrier improves the production processes, the products and services and, ultimately, helps to improve the everyday life of people.
The word "improve" represents Carrier's belief in continuous improvement of products and services in order to improve people's lives with the minimum possible environmental impact.



Key Features

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High efficiency DC inverter compressor

Carrier XPower systems achieve the industry's top class energy efficiency of cooling (EER) and heating (COP) by:
- utilizing the Brushless Reluctance DC compressor control
- improved performance heat exchanger by innovative design
- numerous high performance key parts. High efficiency DC inverter compressor reduces power consumption by 25%

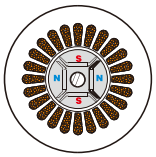
New structure enhances mid-frequency performance

Specially designed scroll profile for R410A

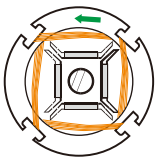
More compact, weight reduced by 50%

Advanced permanent magnet DC motor improves low-frequency band performance

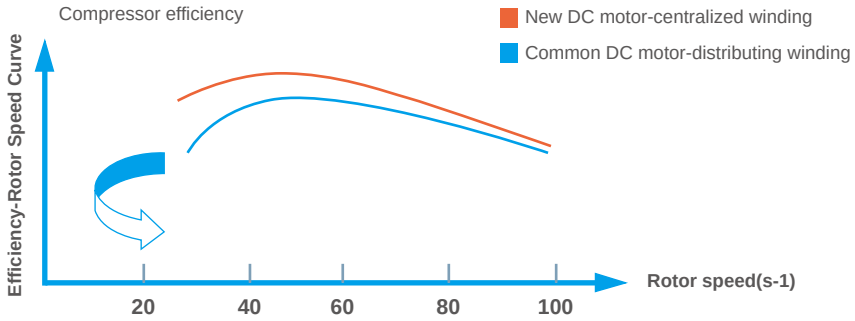
Powerful magnets provide high torque and efficiency and achieve 70% reduction in volume.



Centralizing winding

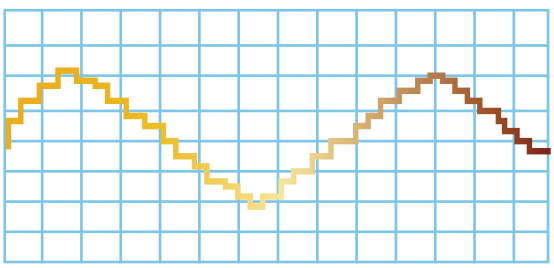


Distributing winding

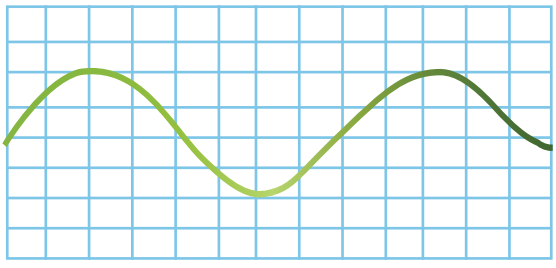


Smooth 180° sine wave DC inverter

Adopting the 180° Sine Wave Inverter to smooth motor rotation greatly improves operating efficiency compared with traditional sawtooth wave.



Common Sawtooth Wave

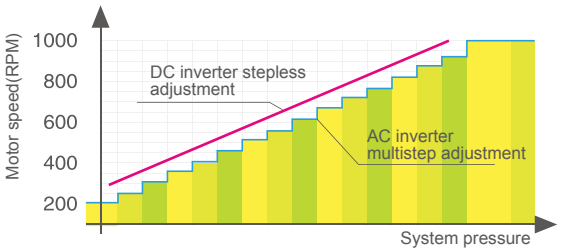


180° Sine Wave DC Inverter

High efficiency DC fan motor

According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance.

DC motor

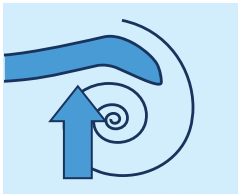


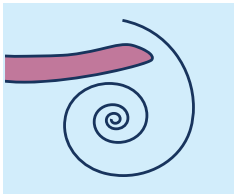
Optimized fan grille

Optimized fan blade shape with new air outlet grille enhanced air flow volume which greatly improves fan performance and decreases noise.
Also, a higher external static pressure has been achieved up to 40Pa. (0-20Pa is standard, 20~40Pa should be customized).

New profile fan blade

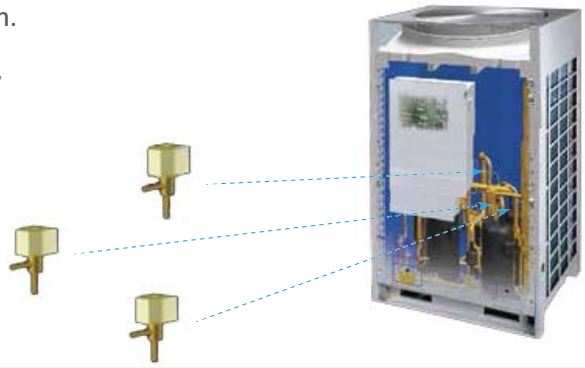
A new blade with sharp edges and a slight curve increases the airflow rate and lowers vibration and airflow resistance.





Multi solenoid valves control technology

Multi solenoid valves control technology in one system. All the solenoid valves equipped in the unit ensure temperature-control precisely, system running steadily and economic to provide a comfortable environment.



Cycle duty operation

In one combination, any of the outdoor unit can run as the master unit and master unit can cycle in a period, to realize the equal lifespan among the outdoor units. As a result extend the system lifespan significantly.

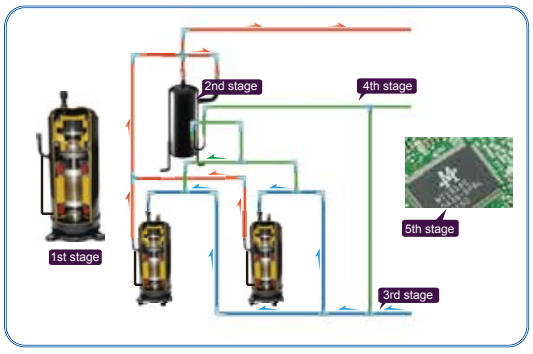
Backup operation

In a multiple system, if one module is failed, other modules can be backup instead of the failed one for continuing operation.

Start backup operation

Precise oil control technology

5 stage oil control technology ensures every outdoor unit & compressor's oil always keep in the safe level, completely solve the compressor oil lack problem.
1st stage: compressor internal oil separate
2nd stage: high efficiency oil separator (separation efficiency up to 99%)
3rd stage: oil balance technology between compressors
4th stage: oil balance technology between modules
5th stage: intelligent system oil return program

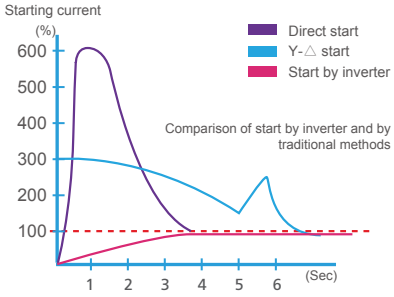


Double EXV control technology

Double EXV Control Technology in one system, each EXV part achieves 480 pulse to adjust flow precisely. Ensure the temperature-control precisely and steadily to provide a comfortable envrionment.

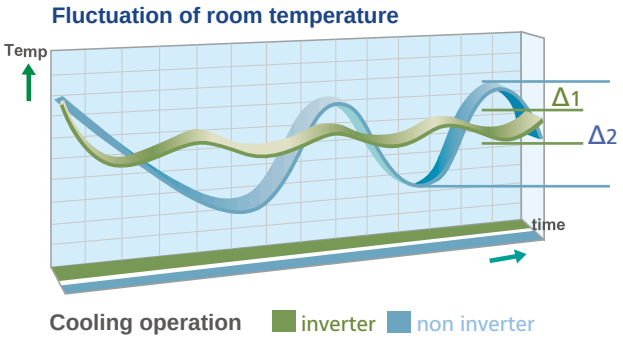
Intelligent soft start technology

DC inverter compressor soft start function reduces strike to the electric network. This kind of high-performance and low sound scroll compressor operates at a faster rate when starting, reducing start-up time. It also helps the unit to quickly adjust the room temperature to the set level.



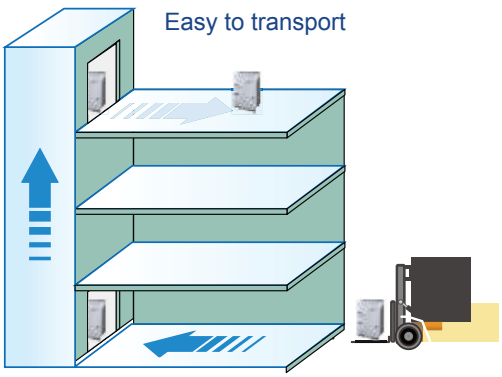
Quick warm-up & cool-down design

By utilizing the benefits of the inverter compressor, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution.
Less temperature fluctuation will create a better living environment.



Compact design for effective use of space

Compact size and light weight design minimizes the installation footprint, reduces the installation floor load, and is easier for transportation. For some projects the units can even be transported through the elevator or forklift, reduce access problem at the jobsite.



Outdoor Units

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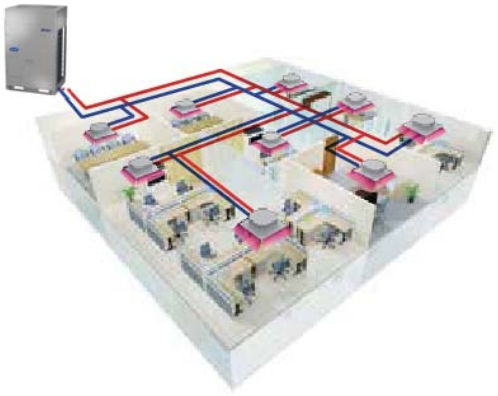
XPower DC Inverter Systems

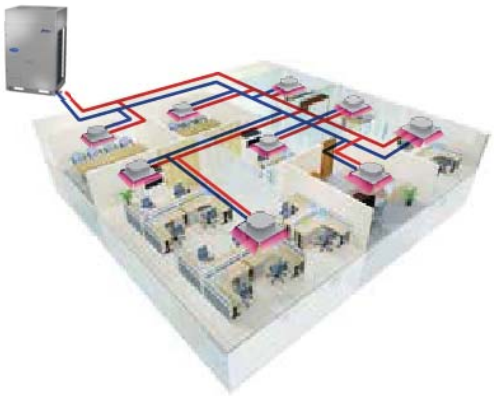
XPower DC Inverter **Eco K series**

- Heat pump system
- Large capacity DC inverter compressor contribute to higher energy efficiency greatly
- Up to 64 indoor units can be operated in one system
- Extensive capacity range from 8HP to 72HP in 2HP increments, meets all customer requirement concerning small to large buildings



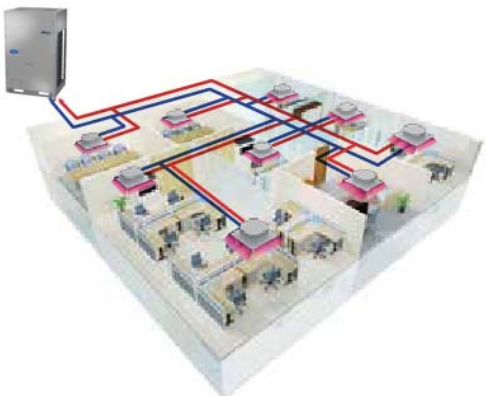
XPower Full DC Inverter **S Series**

- Heat pump system
- All DC inverter technology with all DC inverter compressors and all DC fan motors makes high energy efficiency
- Up to 64 indoor units can be operated in one system
- Extensive capacity range from 8HP to 72HP in 2HP increments, meets all customer requirement concerning small to large buildings



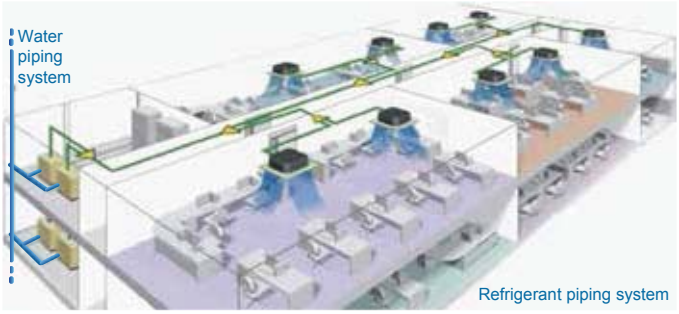
XPower Full DC Inverter **Heat Recovery R Series**

- For simultaneous cooling and heating operation in one system
- Up to 64 indoor units can be operated in one system
- Extensive capacity range from 8HP to 64HP in 2HP increments, meets all customer requirement concerning small to large buildings
- Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating
- The MS equipment switches the system between cooling and heating modes



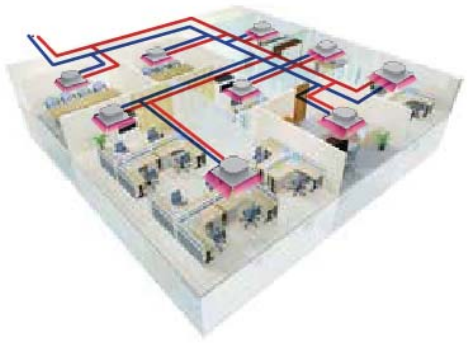
XPower DC Inverter **Water Cooled W Series**

- Perfect combination of water and refrigerant system
- Up to 59 indoor units can be operated in one system
- Extensive capacity range from 8HP to 36HP in 2HP increments, meets all customer requirement concerning small to large buildings
- Heat recovery is achieved by diverting exhaust heat from cooling areas to areas requiring heating



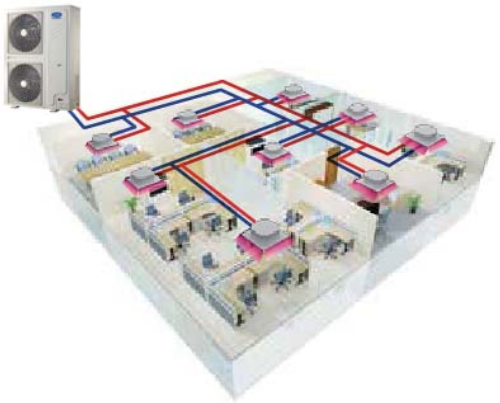
XPower DC Inverter **Individual Ⅰ Series**

- Heat pump system
- Maximum 39 indoor units can be operated in one system
- Extensive capacity range from 56kW to 67kW, making it perfect for middle and small commercial and residential application



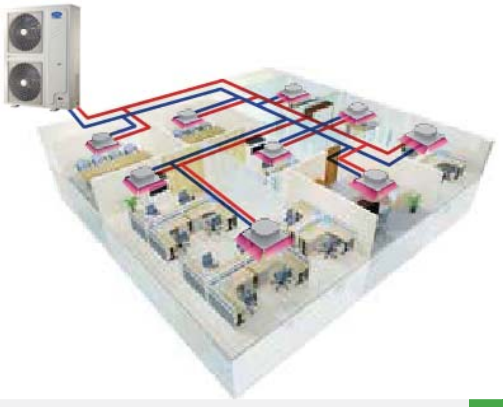
XPower Full DC Inverter **Mini VRF Series (1-phase or 3-phase)**

- Heat pump system
- All DC inverter technology with all DC inverter compressors and all DC fan motors makes high energy efficiency
- Maximum 8 indoor units can be operated in one system
- Extensive capacity range from 12kW to 17.5kW, making it particularly suitable for small offices, villas, shops, etc.



XPower Full DC Inverter **Mini VRF / Side Discharge**

- Heat pump system
- All DC inverter technology
- Maximum 15 indoor units can be operated in one system
- Capacity range from 20kW to 45kW



Products Lineup

XPower DC Inverter Eco K series

Capacity	HP	8	10	12	14	16	18
	kW	25.2	28.0	33.5	40.0	45.0	50.0

XPower Full DC Inverter S Series

Capacity	HP	8	10	12	14	16	18
	kW	25.2	28.0	33.5	40.0	45.0	50.0

XPower Full DC Inverter Heat Recovery R Series

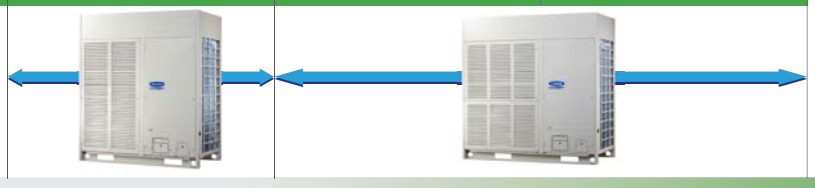
Capacity	HP	8	10	12	14	16
	kW	25.2	28.0	33.5	40.0	45.0

XPower DC Inverter Water Cooled W Series

Capacity	HP	8	10	12
	kW	25.2	28.0	33.5

XPower DC Inverter Individual I Series

Capacity	HP	20	22	24
	kW	56.0	61.5	67.0

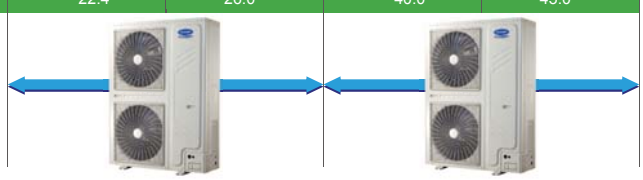


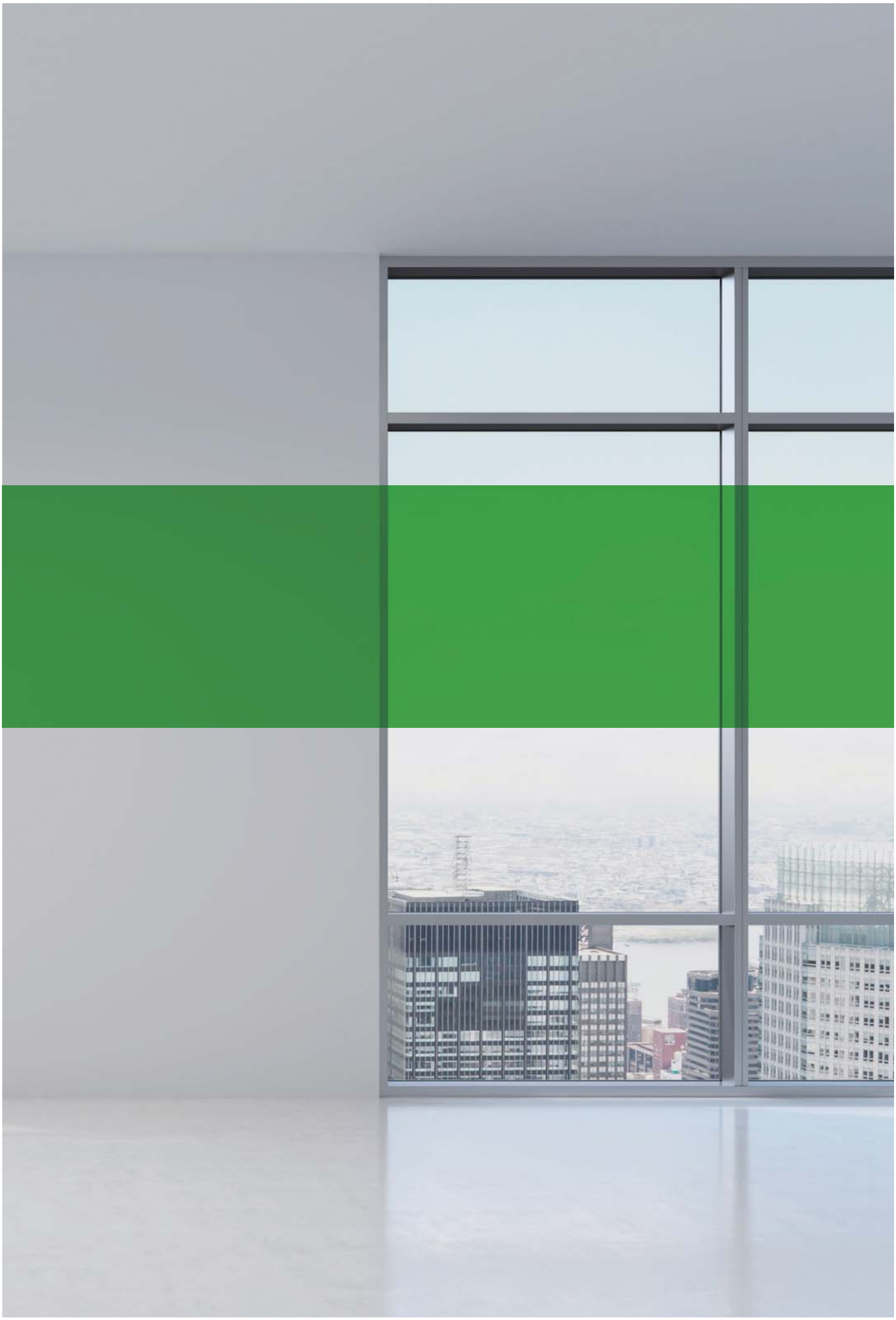
XPower Full DC Inverter Mini VRF Series (1-phase or 3-phase)

Capacity	HP	4	5	6
	kW	12	14	16

XPower Full DC Inverter Mini VRF Series / Side Discharge

Capacity	HP	8	10	14	16
	kW	22.4	26.0	40.0	45.0





XPower DC Inverter **Eco K Series**

XPower ECO K series incorporates numerous outstanding features, including large-capacity outdoor and indoor units and high external static pressure.The 8HP and 10HP units use one DC Inverter Compressor, 12HP to 18HP units feature higher capacity two DC inverter compressors, and adopt energy-saving technologies. This series provides an incredible piping length of 1000m and a level difference of 110m, making it perfect for large high-rise buildings.

Recommended combination table

Model	N° of Outdoor Units	N° of Compressors	Outdoor Unit Combination						Maximum N° of Connectable Indoor Units	Capacity	
			8HP	10HP	12HP	14HP	16HP	18HP		Cooling	Heating
38VR008H1190K0	1	1	1						13	25,2	27
38VR010H1190K0	1	1		1					16	28	31.5
38VR012H1190K0	1	2			1				20	33,5	37.5
38VR014H1190K0	1	2				1			23	40	45
38VR016H1190K0	1	2					1		26	45	50
38VR018H1190K0	1	2						1	29	50	56
38VR020H1190K0	2	2		2					33	56	63
38VR022H1190K0	2	3		1					36	61,5	69
38VR024H1190K0	2	3		1	1				39	68	76,5
38VR026H1190K0	2	3		1		1	1		43	73	81,5
38VR028H1190K0	2	3		1				1	46	78	87,5
38VR030H1190K0	2	4				1	1		50	85	95
38VR032H1190K0	2	4				1		1	53	90	101
38VR034H1190K0	2	4					1	1	56	95	106
38VR036H1190K0	2	4						2	59	100	112
38VR038H1190K0	3	4		2				1	63	106	119
38VR040H1190K0	3	5		1		1	1		64	113	126,5
38VR042H1190K0	3	5		1			2		64	118	131,5
38VR044H1190K0	3	5		1			1	1	64	123	137,5
38VR046H1190K0	3	5		1				2	64	128	143,5
38VR048H1190K0	3	6				1	1	1	64	135	151
38VR050H1190K0	3	6				1		2	64	140	157
38VR052H1190K0	3	6					1	2	64	145	162
38VR054H1190K0	3	6						3	64	150	168
38VR056H1190K0	4	6		2				2	64	156	175
38VR058H1190K0	4	7		1		1	1	1	64	163	182,5
38VR060H1190K0	4	7		1		1		2	64	168	188,5
38VR062H1190K0	4	7		1			1	2	64	173	193,5
38VR064H1190K0	4	7		1				3	64	178	199,5
38VR066H1190K0	4	8				1	1	2	64	185	207
38VR068H1190K0	4	8				1		3	64	190	213
38VR070H1190K0	4	8					1	3	64	195	218
38VR072H1190K0	4	8						4	64	200	224

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27℃(80.6℉) DB/19℃(66.2℉) WB; Outdoor temperature 35℃(95℉) DB
Heating: Indoor temperature 20℃(68℉) DB/15℃(59℉) WB; Outdoor temperature 7℃(44.6℉) DB
Piping length: Interconnecting piping length 7.5m, level difference of 0m.
The above models combination are factory-recommended models.

Features

Wide Application Range

Large capacity for big sized building

The outdoor units capacity range from 8HP up to 72HP in 2HP increment. Maximum 64 indoor units with capacity up to 130% of total outdoor units can be connected as one refrigeration system.

8, 10HP

12, 14, 16HP

18HP

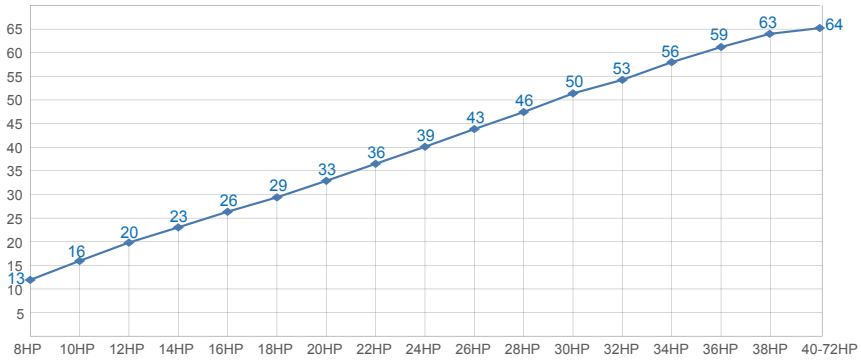
20, 22, 24, 26, 28, 30, 32, 34, 36HP

38, 40, 42, 44, 46, 48, 50, 52, 54HP

56, 58, 60, 62, 64, 66, 68, 70, 72HP

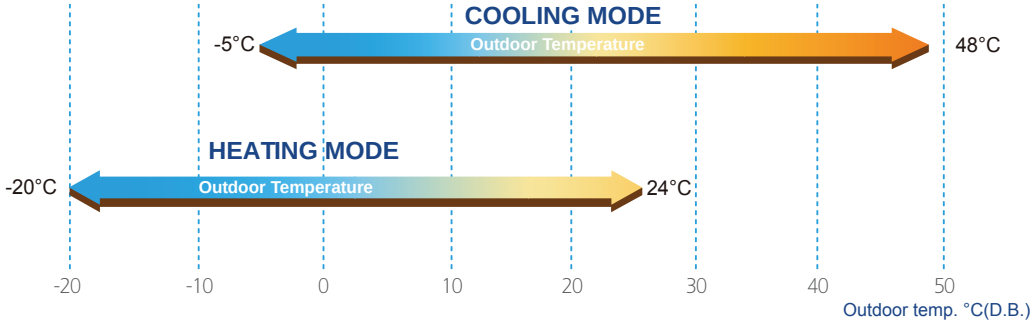
Large connectable indoor units quantity

The large quantity of connectable units is suitable for large buildings and projects.



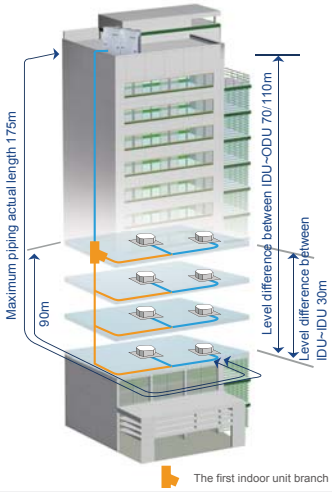
Wide operation range

It operates stably at extreme temperatures ranging from minus 20°C to 48°C.



Long piping length

The solution supports an incredible piping length of 1.000m and level difference of 110m, making it perfect for large projects.


Maximum piping actual length 175m
90m
Level difference between IDU~ODU 70/110m
Level difference between IDU~IDU 30m
The first indoor unit branch

			Permitted value
Piping length	Total pipe length*(Actual)		1000m
	Maximum piping(L)	Actual length	175m
		Equivalent length	200m
Level difference	Equivalent piping length from the farthest IDU to the first indoor branch joint		40m/90m*
	Level difference between IDU~ODU	Outdoor unit up	70m
		Outdoor unit down	110m
	Level difference between IDU~IDU		30m

*Total pipe length is equal to two times — pipe length plus — pipe length.
*When the farthest pipe length is more than 40m. It needs to meet the specific condition according to the installation part of the technical manual.

Extra high static pressure – Max. 60Pa and air volume increased by 10%

The high static pressure propeller and optimized fan guard can adapt to various installation environments.

Carrier now offers up to 60Pa* external static pressure units for customized applications (60Pa is available for the 12HP model, 40Pa is available for other models).

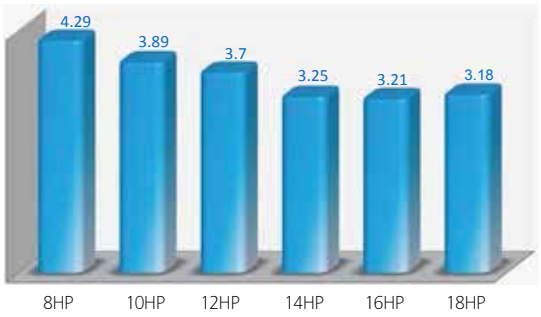
A standard 0-20Pa function is equipped by default.

High Efficiency

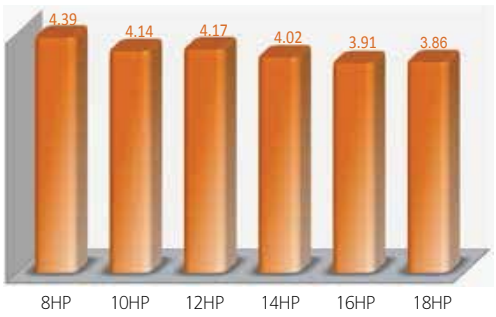
XPower ECO K Series with high efficiency DC compressors, DC motors and high efficient heat exchanger. The cooling EER up to 4.29 and the heating COP up to 4.39 (in the 8HP category).

Enhanced rated heat capacity

EER



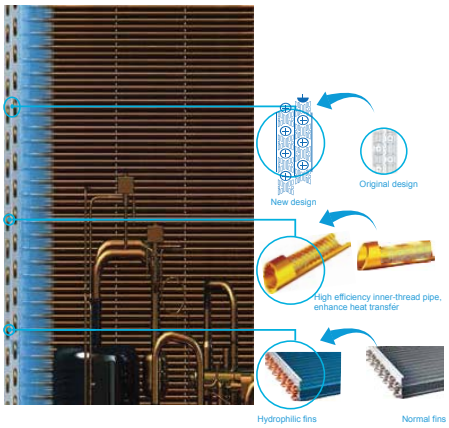
COP



High performance heat exchanger

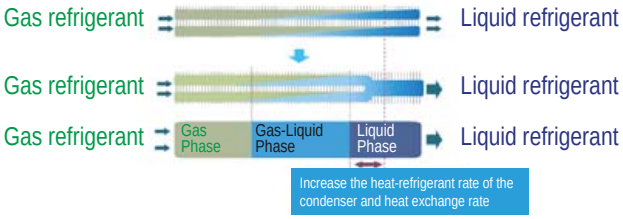
The new designed window fins enlarge the heat-exchanging area, decrease the air resistance, save more power and enhance heat exchange performance.

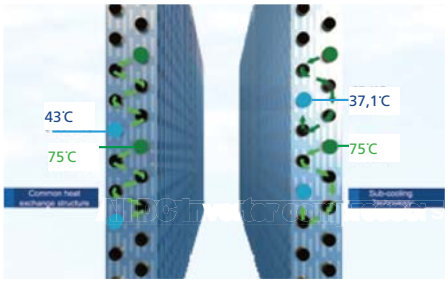
Hydrophilic fins and inner-threaded copper pipes optimize heat exchange efficiency.



12° C sub cooling

Innovative designed outdoor unit high efficiency heat exchanger, one time can reach up to 12°C subcooling degree, reduces the system resistance and improves reliability.
When the outdoor temperature is 35° C, the refrigerant can be cooled to 37,1°C, thus achieving high efficiency heat exchange with only 2,1°C temperature difference.





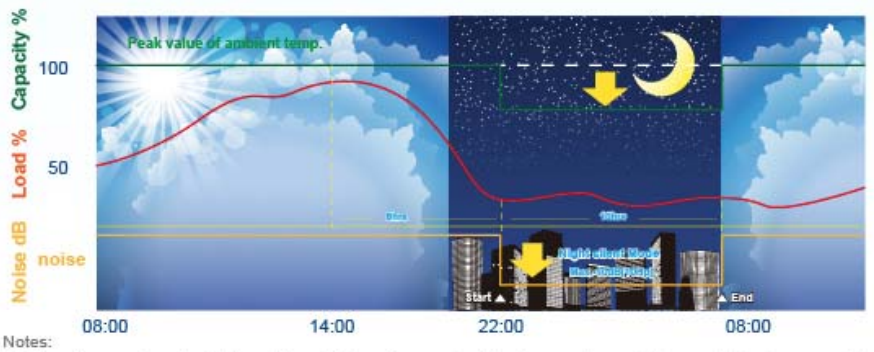
Enhanced Comfort

Night silent operation mode

High comfort outdoor unit's multi-choice of silent mode during the night.
Super silent operation mode can reduce sound level further, minimum 46.8dB (A).

Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

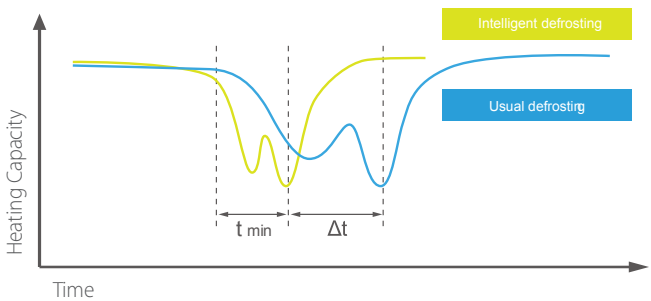
-Mode 1: X: 6 hours, Y: 10 hours
-Mode 2: X: 8 hours, Y: 10 hours
-Mode 3: X: 6 hours, Y: 12 hours
-Mode 4: X: 8 hours, Y: 8 hours



Notes:
This function can be activated by setting at site. Temperature(load) curve shown in the graph is just an example.

Intelligent defrosting technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.
Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.



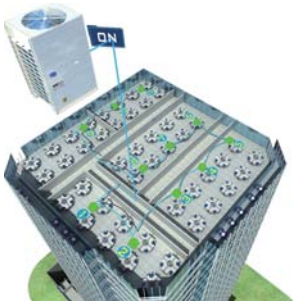
Easier Installation and Service

Simple signal line connection

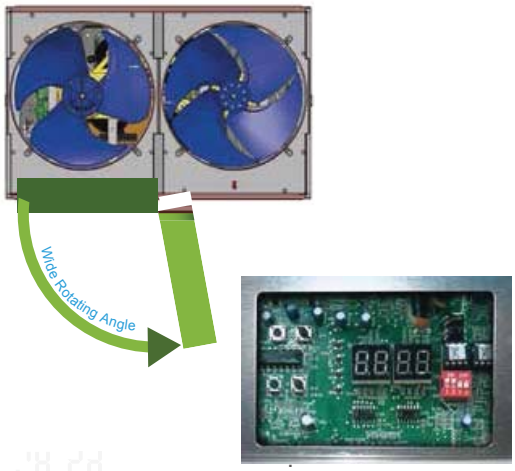
Centralized controller (CCM03 or CCM30) can be connected from indoor side or outdoor side (XYE terminals) at will. Only one group of communication wire of PQE, achieved both of communication for indoor & outdoor unit. It's more convenient for communication wiring.

Auto addressing

Outdoor unit can distribute addresses for indoor unit automatically.
Wireless and wired controllers can query and modify each indoor unit's address.



Easy maintainence



Reserved checking window on electric controlbox for convenient spot checking and status enquiry.

Newly designed rotating control box is so excellent that it can rotate in a wide angle. It is convenient for inspection and maintenance of the pipeline system and greatly reduces the time of dismount the electric control box.

* Rotating Control box is available for 18HP model which with G-shape Condenser

Compressor is located near the door, which simplifies checks and enables valve or compressor parts to be replaced easily.

88 88 Self-diagnosis function helps service engineers locate faults quickly and easily

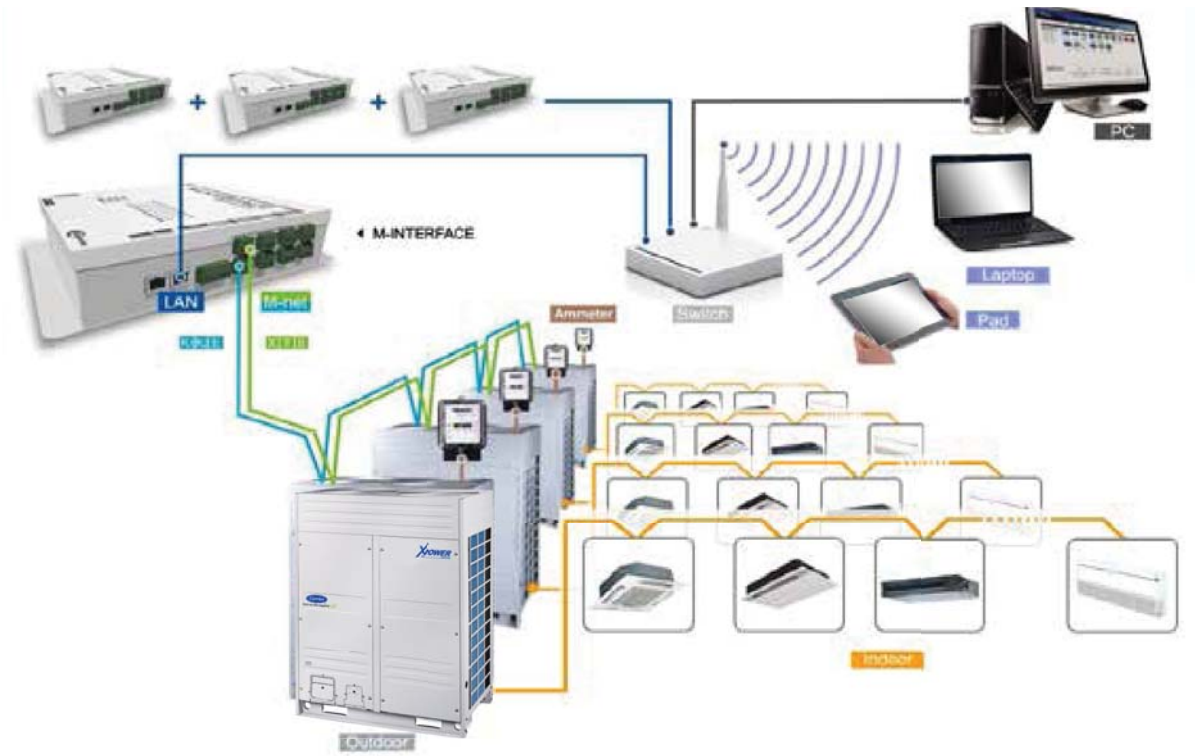
Various locking modes

Various locking modes enhance convenience for users.
In VIP priority or vote priority mode, the address of the VIP unit should be set as 63. If there is no named 63 unit, it will respond to vote priority.

Heating priority mode (default)
Cooling priority mode
Priority mode (VIP priority or Vote priority)
Only respond to Heating mode
Only respond to Cooling mode

Integrated solution for control and management

Intelligent Manager is designed specifically to control the XPower VRF systems. It is based around a centralized format and dedicated to the complete control and monitoring of all the system' s functions. It can be used as a flexible multi-purpose system and applied to a variety of needs, according to the scale, purpose and control method of each building.



Outdoor Unit

Model			38VR008H1190K0	38VR010H1190K0	38VR012H1190K0
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	25,2	28,0	33,5
	Power input	kW	5,88	7,20	9,05
	EER	kW/kW	4,29	3,89	3,70
Heating	Capacity	kW	27,0	31,5	37,5
	Power input	kW	6,15	7,61	8,99
	COP	kW/kW	4.39	4,14	4,17
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		13	16	20
Sound pressure level		dB(A)	57	57	59
Pipe connections	Liquid pipe	mm	Φ12,7	Φ12,7	Φ15,9
	Gas pipe	mm	Φ25,4	Φ 25,2	Φ31,8
	Oil balance pipe	mm	Φ6	Φ6	Φ6
Fan motor	Type		DC	DC	DC+AC
	Quantity		1	1	1+1
	Air flow rate	m^3/h	11.500	11.500	15.100
	ESP	Pa	0-20(default)	0-20(default)	0-20(default)
		Pa	20-40(customized)	20-40(customized)	20-60(customized)
DC inverter compressor	Quantity		1	1	1
Fixed scroll compressor	Quantity		-	-	1
Refrigerant	Type		R410A	R410A	R410A
	Factory charging		9	9	11
Net dimension (W×H×D)		mm	960×1615×765	960×1615×765	1250×1615×765
Packing size (W×H×D)		mm	1025×1790×830	1025×1790×830	1305×1790×825
Net weight		kg	198	198	268
Gross weight		kg	213	213	288
Operating temperature range	Cooling	°C	-5-48		
	Heating	°C	-20-24		

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.

Outdoor Unit

Model			38VR014H1190K0	38VR016H1190K0	38VR018H1190K0
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	40,0	45,0	50,0
	Power input	kW	12,3	14,0	15,7
	EER	kW/kW	3,25	3,21	3,18
Heating	Capacity	kW	45,0	50,0	56,0
	Power input	kW	11,2	12,8	14,5
	COP	kW/kW	4,02	3,91	3,86
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		23	26	29
Sound pressure level		dB(A)	60	60	61
Pipe connections	Liquid pipe	mm	Φ15,9	Φ15,9	Φ19,1
	Gas pipe	mm	Φ31,8	Φ31,8	Φ31,8
	Oil balance pipe	mm	Φ6,35	Φ6,35	Φ6,35
Fan motor	Type		DC+AC	DC+AC	DC+AC
	Quantity		1+1	1+1	1+1
	Air flow rate	m^3/h	15.100	15.100	15,250
	ESP	Pa	0-20(default)	0-20(default)	0-20(default)
		Pa	20-40(customized)	20-40(customized)	20-40(customized)
DC inverter compressor	Quantity		1	1	1
Fixed scroll compressor	Quantity		1	1	1
Refrigerant charge	Type		R410A	R410A	R410A
	Original charge	kg	13	13	16
Net dimension (W×H×D)		mm	1250×1615×765	1250×1615×765	1250×1615×765
Packing size (W×H×D)		mm	1305×1790×825	1305×1790×825	1305×1790×825
Net weight		kg	280	280	300
Gross weight		kg	300	300	320
Operating temperature range	Cooling	°C	-5-48		
	Heating	°C	-20-24		

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.

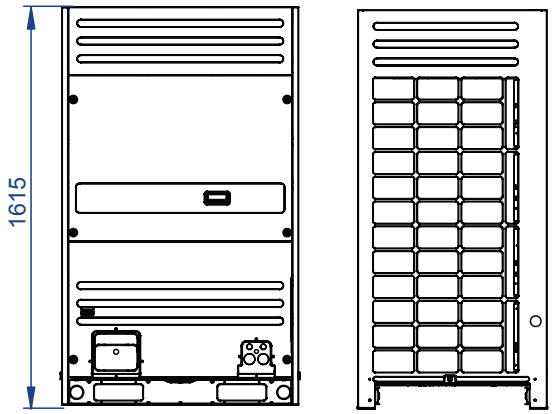
Outdoor Unit Dimensions

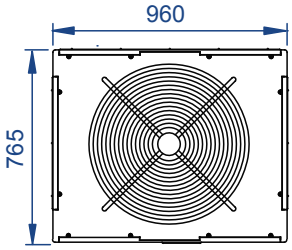
Body dimension

Models: 38 VR008_/38VR010H1190K0

Unit: mm

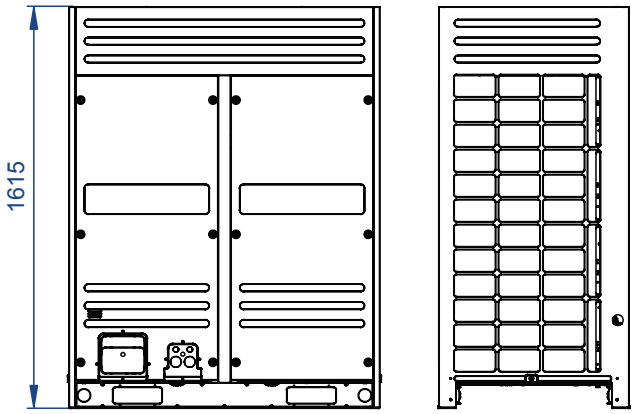
8/10 HP

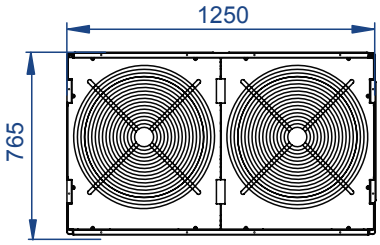




Models: 38 VR012/14/16/18H1190K0

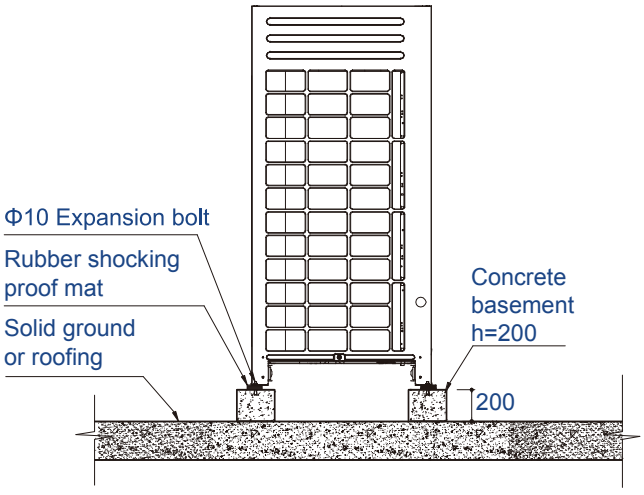
12/14/16 /18 HP

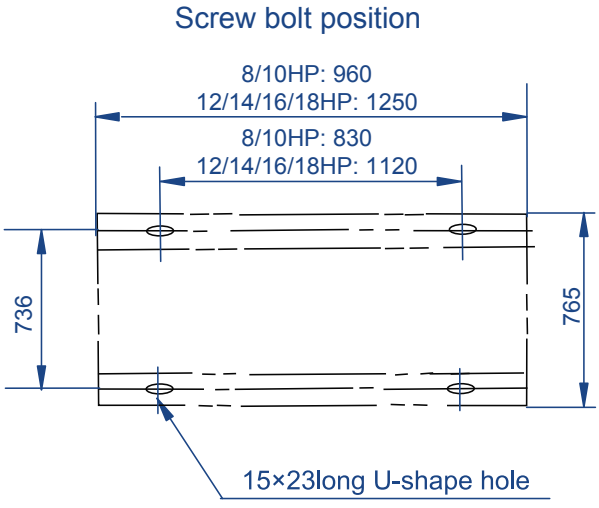


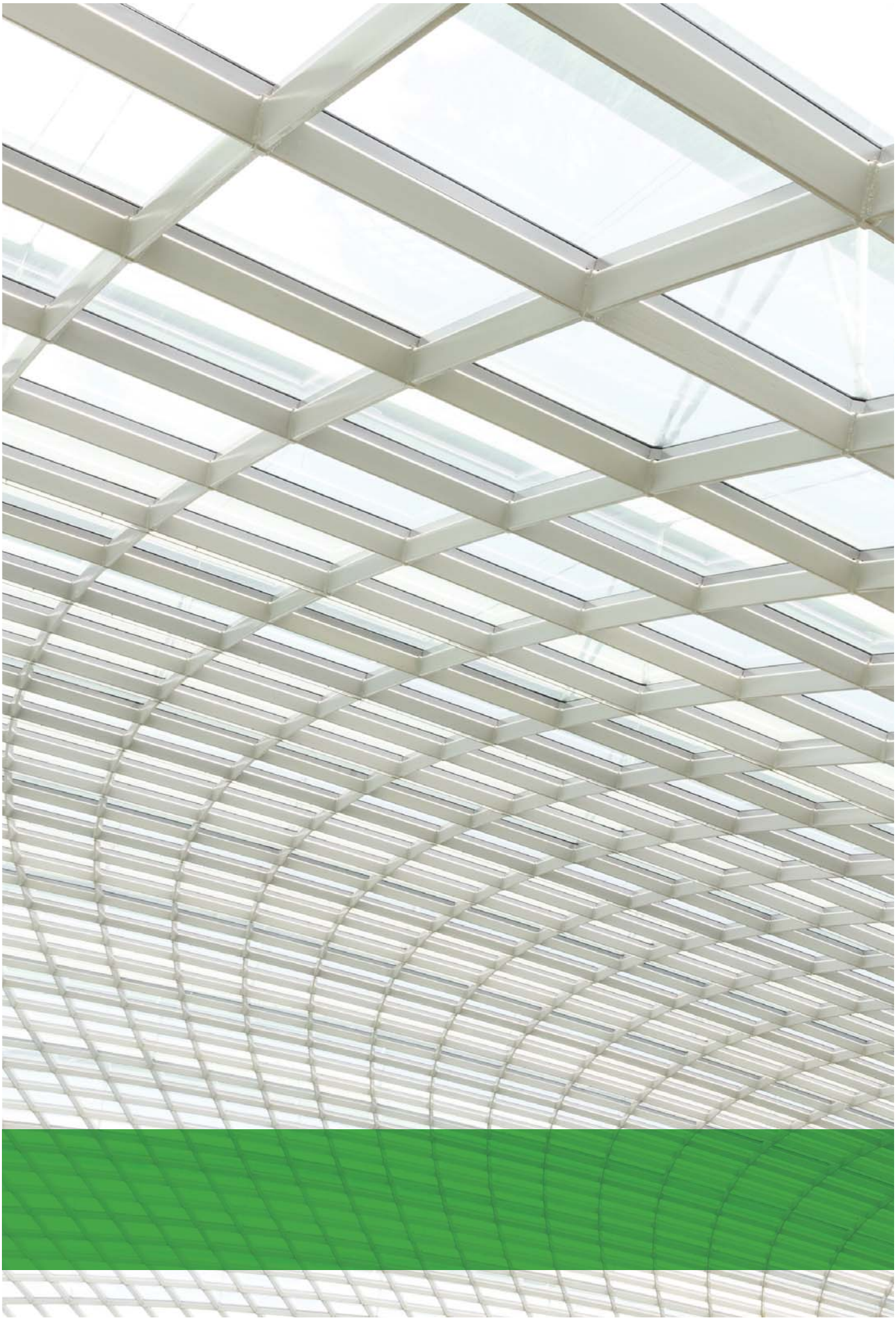


Installation dimension

Unit: mm







XPower Full DC Inverter **S Series**

XPower Full DC Inverter S Series achieves world's largest capacity of 72HP with the industry's top class energy efficiency of cooling and heating. The 8HP and 10HP units use one DC Inverter Compressor, 12HP to 18HP units feature higher capacity two DC inverter compressors, and adopt energy-saving technologies. It supports an incredible piping length of 1000m and a longer level difference of 110m, making it perfect for big-sized and high-rise buildings for wide application.

Recommended combination table

Model	HP	Nº of Outdoor Units	Nº of Compressors	Outdoor Unit Combination						Maximum Nº of Connectable Indoor Units	Capacity (kW)	
				8HP	10HP	12HP	14HP	16HP	18HP*		Cooling	Heating
38VF008H119010	8HP	1	1	1						13	25.2	27
38VF010H119010	10HP	1	1		1					16	28	31.5
38VF012H119010	12HP	1	2			1				20	33.5	37.5
38VF014H119010	14HP	1	2				1			23	40	45
38VF016H119010	16HP	1	2					1		26	45	50
38VF018H119010	18HP	1	2						1	29	50	56
38VF020H119010	20HP	2	2		2					33	56	63
38VF022H119010	22HP	2	3		1	1				36	61.5	69
38VF024H119010	24HP	2	3		1		1			39	68	76.5
38VF026H119010	26HP	2	3		1			1		43	73	81.5
38VF028H119010	28HP	2	3		1				1	46	78	87.5
38VF030H119010	30HP	2	4				1	1		50	85	95
38VF032H119010	32HP	2	4				1		1	53	90	101
38VF034H119010	34HP	2	4					1	1	56	95	106
38VF036H119010	36HP	2	4						2	59	100	112
38VF038H119010	38HP	3	4		2				1	63	106	119
38VF040H119010	40HP	3	5		1		1	1		64	113	126.5
38VF042H119010	42HP	3	5		1			2		64	120	135
38VF044H119010	44HP	3	5		1			1	1	64	123	137.5
38VF046H119010	46HP	3	5		1				2	64	128	143.5
38VF048H119010	48HP	3	6				1	1	1	64	135	151
38VF050H119010	50HP	3	6				1		2	64	140	157
38VF052H119010	52HP	3	6					1	2	64	145	162
38VF054H119010	54HP	3	6						3	64	150	168
38VF056H119010	56HP	4	6		2				2	64	156	175
38VF058H119010	58HP	4	7		1		1	1	1	64	163	182.5
38VF060H119010	60HP	4	7			1	1		2	64	168	188.5
38VF062H119010	62HP	4	7		1			1	2	64	173	193.5
38VF064H119010	64HP	4	7		1				3	64	178	199.5
38VF066H119010	66HP	4	8				1	1	2	64	185	207
38VF068H119010	68HP	4	8				1		3	64	190	213
38VF070H119010	70HP	4	8					1	3	64	195	218
38VF072H119010	72HP	4	8						4	64	200	224

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27ºC DB/19ºC WB; Outdoor temperature 35ºC DB/24ºC WB.
Heating: Indoor temperature 20ºC DB/15ºC WB; Outdoor temperature 7ºC DB/6ºC WB.
Piping length: Interconnecting piping length is 7.5m, level difference is 0m.
The above combination models are factory-recommended models.
*18HP model can be customized.

Features

Wide Application Range

Wide range of outdoor units

The outdoor units capacity range from 8HP up to 72HP in 2HP increment. Maximum 64 indoor units with capacity up to 130% of total outdoor units can be connected in one refrigeration system.

8, 10HP

12, 14, 16HP

18HP

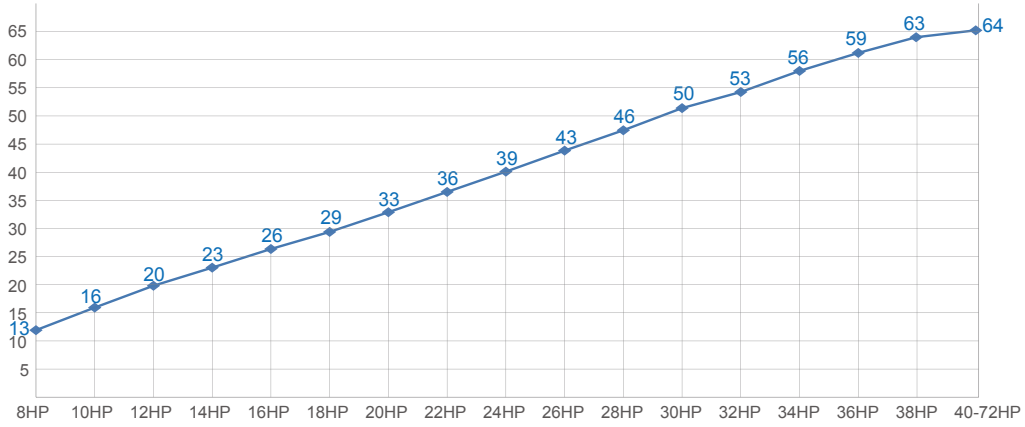
20, 22, 24, 26, 28, 30, 32, 34, 36HP

38, 40, 42, 44, 46, 48, 50, 52, 54HP

56, 58, 60, 62, 64, 66, 68, 70, 72HP

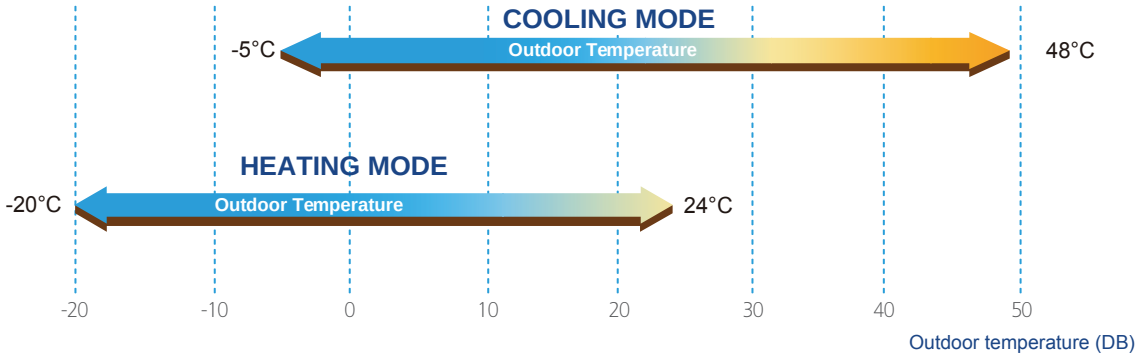
Large connectable indoor units quantity

The large quantity of connectable units is suitable for large buildings and projects.

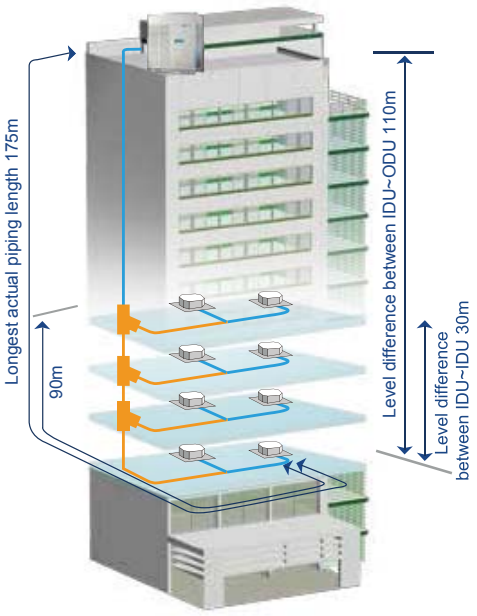


Wide operation range

It operates stably at extreme temperatures ranging from -20°C to 48°C.



Long piping length



			Permited value (m)
Piping length	Actual total piping length		1000*
	Longest piping	Actual length	175
		Equivalent length	200
	Equivalent piping length from the farthest IDU to the first indoor branch joint		40/90*
Level difference	Level difference between indoor and outdoor units	Outdoor unit up	70
		Outdoor unit down	110
	Level difference between indoor units		30

*Total pipe length is equal to two times — pipe length plus — pipe length.
*When the piping length from the farthest IDU to the first indoor branch joint is more than 40m, it needs to meet specific conditions according to the installation part of the technical manual to achieve 90m.

High external static pressure

Max. 60Pa external static pressure can be customized for the outdoor unit, flexible to build-in installation.

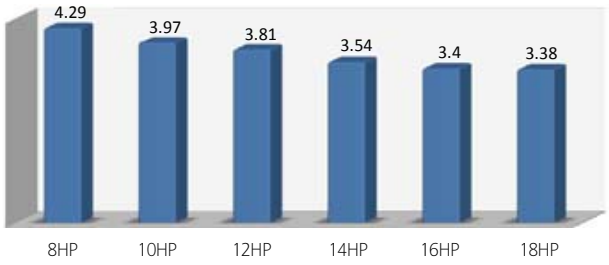
A standard 0-20Pa external static pressure is equipped by default for all outdoor units. 20-60Pa can be customized for 12HP model, 20-40Pa can be customized for other modules.

High Efficiency

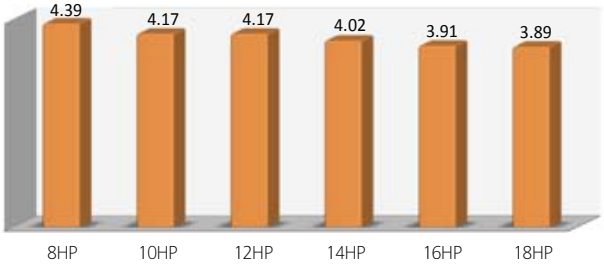
High COP/EER values

The cooling EER up to 4,29 and the heating COP up to 4,39 (in the 8HP catagory).

EER



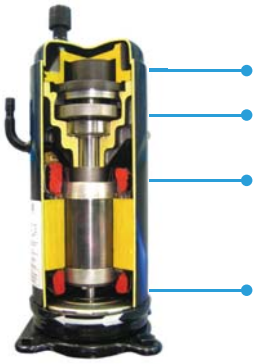
COP



All DC inverter technology

All DC inverter compressors make the capacity output better distributed, and always work at 60-140Hz which is the most efficient range. It makes the efficiency more than 30% higher than the normal.

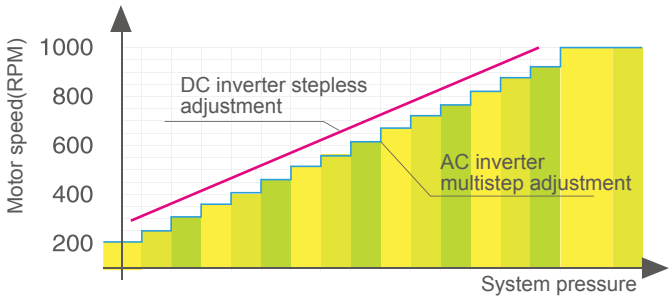
All DC Inverter Compressor



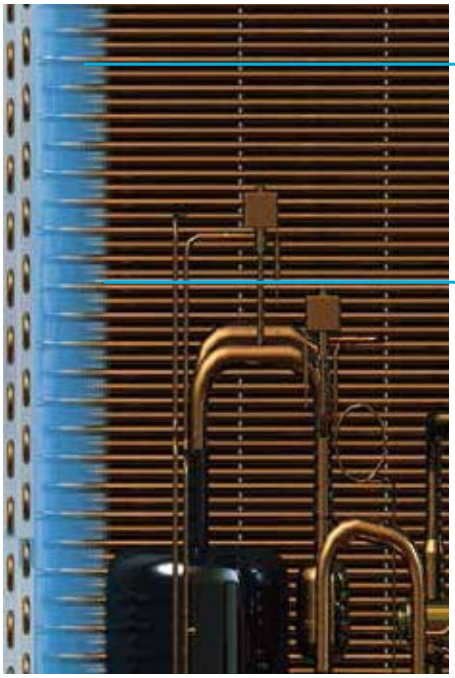
- New structure enhances mid-frequency performance
- Specially designed scroll profile for R410A
- More compact, weight reduced by 50%
- Advanced permanent magnet DC motor improves the low frequency band performance

All DC Fan Motors

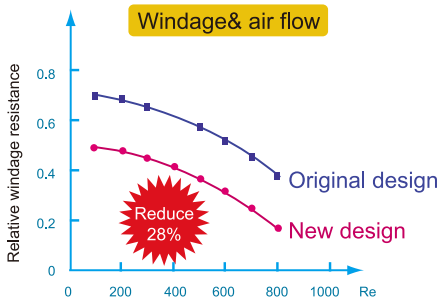
According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance.

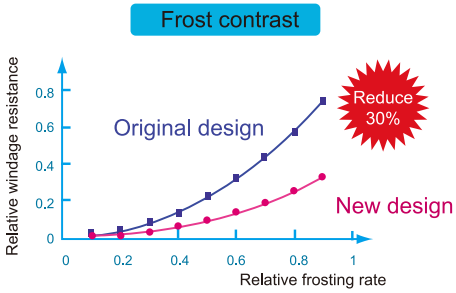


High performance heat exchanger

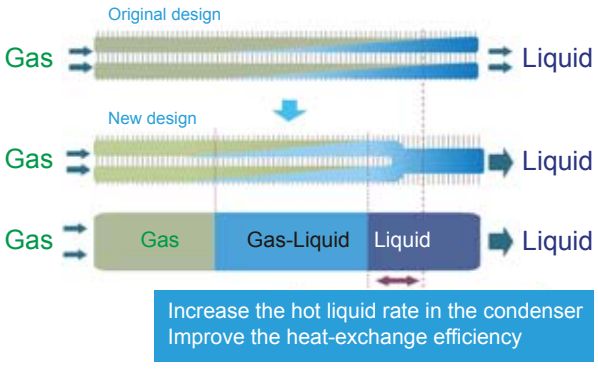


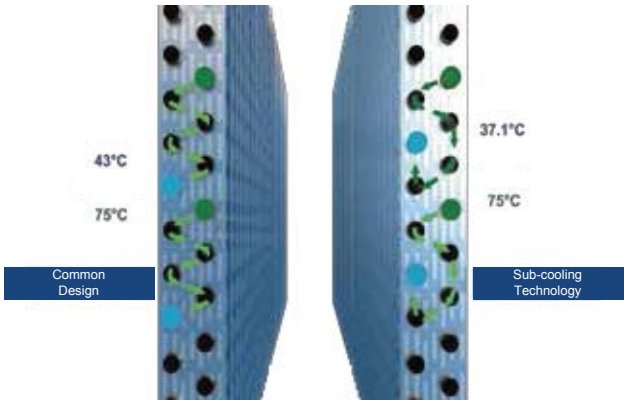
New design
Original design
Reduce air resistance.
High efficiency inner-threaded pipe, enhance heat transfer.
Hydrophilic film fins + inner-threaded pipes





- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.





- Innovative designed high efficiency heat exchanger, which can reach up to 12°C subcooling degree, reduces the system resistance and improves reliability.
- When the outdoor temperature is 35°C, the refrigerant can be cooled down to 37,1°C, thus achieving high heat-exchanging efficiency with only 2,1°C temperature difference.

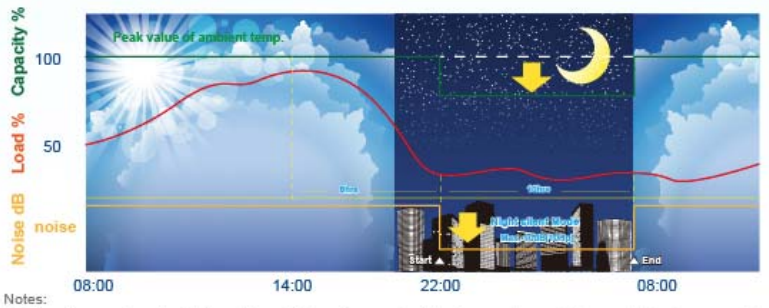
Enhanced Comfort

Night silent operation mode

High comfort outdoor unit's multi-choice of silent mode during the night.
Super silent operation mode can reduce sound level further, minimum 45dB (A).

Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

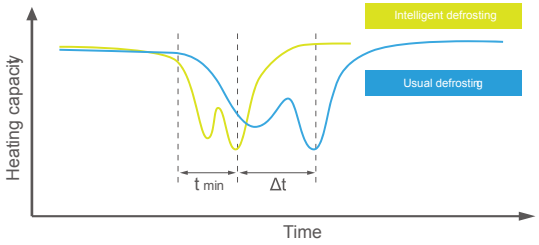
-Mode 1--->X: 6 hours, Y: 10 hours
-Mode 2--->X: 8 hours, Y: 10 hours
-Mode 3--->X: 6 hours, Y: 12 hours
-Mode 4--->X: 8 hours, Y: 8 hours



Notes:
This function can be activated by setting at site. Temperature(load) curve shown in the graph is just an example.

Intelligent defrosting technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.
Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.



Easier Installation and Service

Simple signal line connection

Centralized controller (CCM03 or CCM30) can be connected from indoor side or outdoor side (XYE terminals) at will. Only one group of communication wire of PQE, achieved both of communication for indoor & outdoor unit. It's more conveanient for communication wiring.

Auto addressing

Outdoor unit can distribute addresses for indoor unit automatically.
Wireless and wired controllers can query and modify each indoor unit's address.

Outdoor Unit Specifications

Model			38VF008H119010	38VF010H119010	38VF012H119010
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	25,2	28,0	33,5
	Power input	kW	5,88	7,05	8,80
	EER	kW/kW	4,29	3,97	3,81
Heating	Capacity	kW	27	31,5	37,5
	Power input	kW	6,15	7,55	9,00
	COP	kW/kW	4,39	4,17	4,17
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		13	16	20
Sound pressure level		dB(A)	57		59
Pipe connections	Liquid pipe	mm	Φ12,7		Φ15,9
	Gas pipe	mm	Φ25,4		Φ31,8
	Oil balance pipe	mm	Φ6,4		Φ6,4
Fan motor	Type		DC		DC
	Quantity		1		2
	Outdoor air flow	m^3/h	11.242		13.000
	ESP	Pa	0-20 (default)		0-20 (default)
		Pa	20-40 (customized)		20-60 (customized)
DC inverter compressor	Quantity		1		2
Refrigerant	Type		R410A		R410A
	Factory charging	kg	10		12
Net dimension (W×H×D)		mm	960×1.615×765		1.250×1.615×765
Packing size (W×H×D)		mm	1.025×1.790×830		1.305×1.790×820
Net/Gross weight		kg	212		288
Gross weight		kg	220		300
Operating temperature range	Cooling	°C	-5~48		
	Heating	°C	-20~24		

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.

Outdoor Unit Specifications

Model			38VF014H119010	38VF016H119010	38VF018H119010
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	40,0	45,0	50,0
	Power input	kW	11,30	13,20	14,8
	EER	kW/kW	3,54	3,40	3,38
Heating	Capacity	kW	45,0	50,0	56,0
	Power input	kW	11,2	12,8	14,40
	COP	kW/kW	4,02	3,91	3,89
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		23	26	29
Sound pressure level		dB(A)	61	62	62
Pipe connections	Liquid pipe	mm	Φ15,9	Φ15,9	Φ19,1
	Gas pipe	mm	Φ31,8	Φ31,8	Φ31,8
	Oil balance pipe	mm	Φ6,4	Φ6,4	Φ6,4
Fan motor	Type		DC		
	Quantity		2		
	Outdoor air flow	m^3/h	15.620		15.770
	ESP	Pa	0-20 (default)		
		Pa	20-40 (customized)		
DC inverter compressor	Quantity		2		
Refrigerant	Type		R410A		
	Factory charging	kg	15	15	16
Net dimension (W×H×D)		mm	1.250×1.615×765		
Packing size (W×H×D)		mm	1.305×1.790×820		
Net/Gross weight		kg	288	288	310
Gross weight		kg	308	308	330
Operating temperature range	Cooling	°C	-5~48		
	Heating	°C	-20~24		

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.
*18HP can be customized.

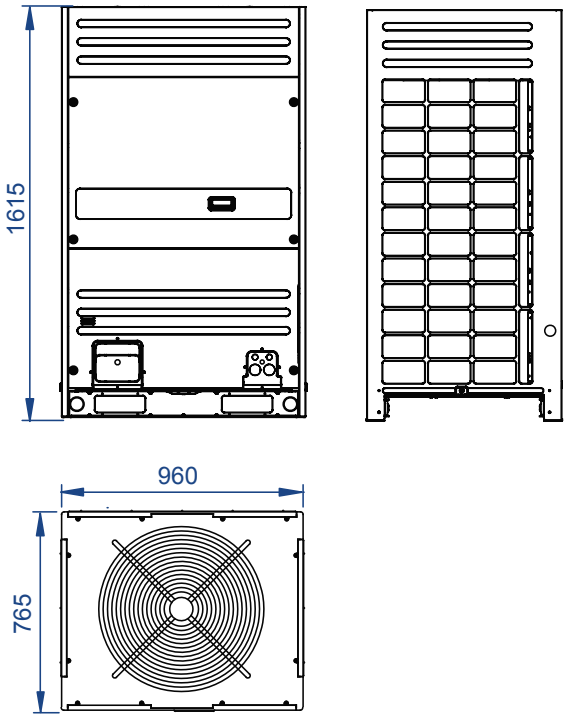
Outdoor Unit Dimensions

Body dimension

Models: 38 VF008/010H119010

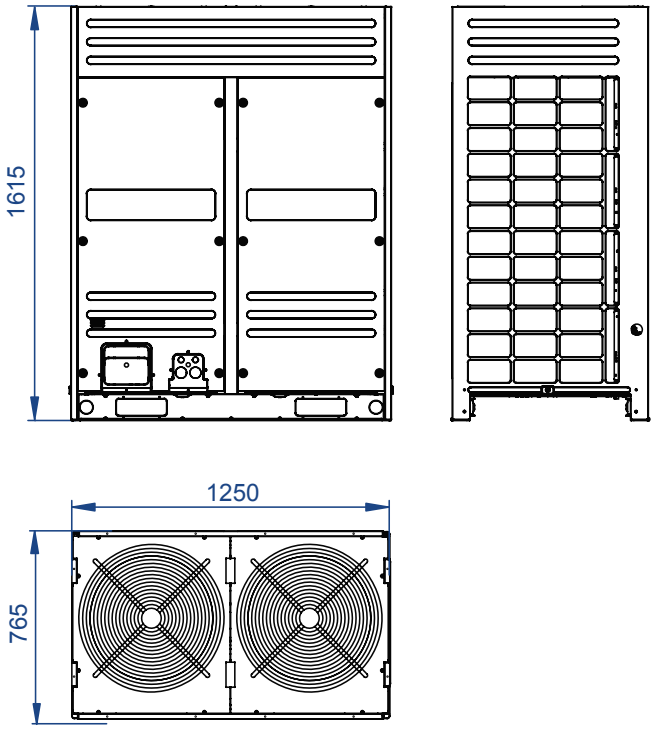
Unit: mm

8/10 HP



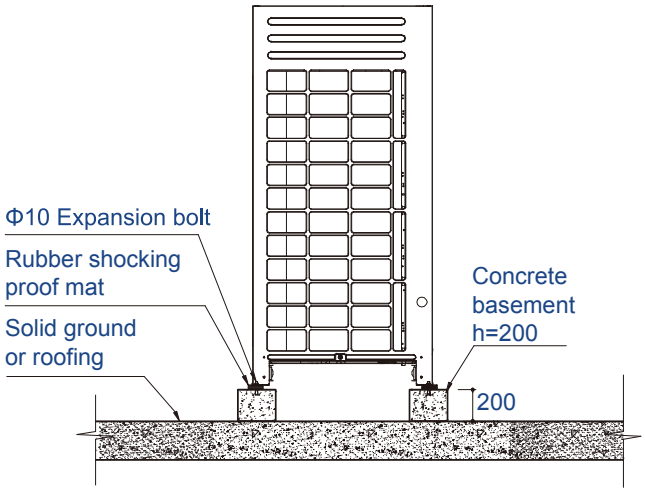
Models: 38 VF012/14/16/18H119010

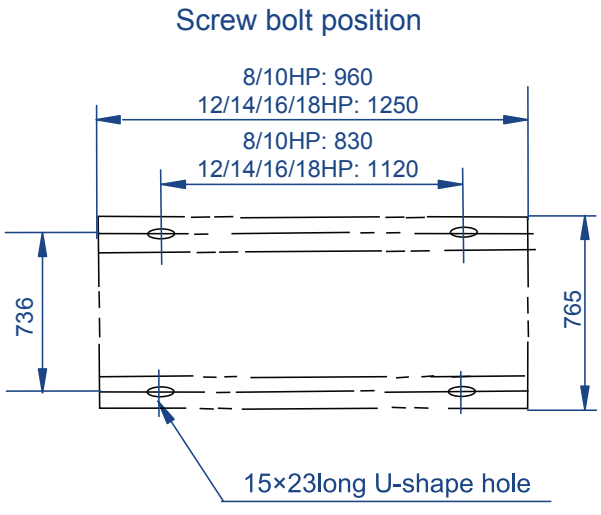
12/14/16 /18 HP



Installation dimension

Unit: mm





XPower Full DC Inverter
Heat Recovery R Series

XPower Full DC Inverter R Series heat recovery can offer simultaneous cooling and heating operation in one system. The energy by-product from cooling or heating is transferred to where it is required by using the balanced heat exchanger function, which saves up to 50% in costs compared with a conventional heat pump system.

Recommended combination table

Model	Nº of Outdoor Units	Nº of Compressors	Outdoor Unit Combination					Maximum Nº of Connectable Indoor Units	Capacity (kW)	
			8HP	10HP	12HP	14HP	16HP		Cooling	Heating
38VF008T119010	1	1	1					13	25,2	27
38VF010T119010	1	1		1				16	28	31,5
38VF012T119010	1	1			1			20	33,5	37,5
38VF014T119010	1	2				1		23	40	45
38VF016T119010	1	2					1	26	45	50
38VF018T119010	2	2	1	1				29	53,2	58,5
38VF020T119010	2	2		2				33	56	63
38VF022T119010	2	2		1	1			36	61,5	69
38VF024T119010	2	3		1		1		39	68	76,5
38VF026T119010	2	3		1			1	43	73	81,5
38VF028T119010	2	4				2		46	80	90
38VF030T119010	2	4				1	1	50	85	95
38VF032T119010	2	4					2	53	90	100
38VF034T119010	3	4		2		1		56	96	108
38VF036T119010	3	4		2			1	59	101	113
38VF038T119010	3	4		1	1		1	63	106,5	119
38VF040T119010	3	5		1		1	1	64	113	126,5
38VF042T119010	3	6				3		64	120	135
38VF044T119010	3	6				2	1	64	125	140
38VF046T119010	3	6				1	2	64	130	145
38VF048T119010	3	6					3	64	135	150
38VF050T119010	4	6	1	1			2	64	143,2	158,5
38VF052T119010	4	6		2			2	64	146	163
38VF054T119010	4	6		1	1		2	64	151,5	169
38VF056T119010	4	7		1		1	2	64	158	176,5
38VF058T119010	4	8				3	1	64	165	185
38VF060T119010	4	8				2	2	64	170	190
38VF062T119010	4	8				1	3	64	175	195
38VF064T119010	4	8					4	64	180	200

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27ºC DB/19ºC WB; Outdoor temperature 35ºC DB/24ºC WB.
Heating: Indoor temperature 20ºC DB/15ºC WB; Outdoor temperature 7ºC DB/6ºC WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
The above combination models are factory-recommended models.

Features

Wide Application Range

Wide range of outdoor units

The outdoor units capacity range from 8HP up to 64HP in 2HP increment. Maximum 64 indoor units with capacity up to 130% of total outdoor units can be connected in one refrigeration system.

8, 10, 12, 14, 16HP

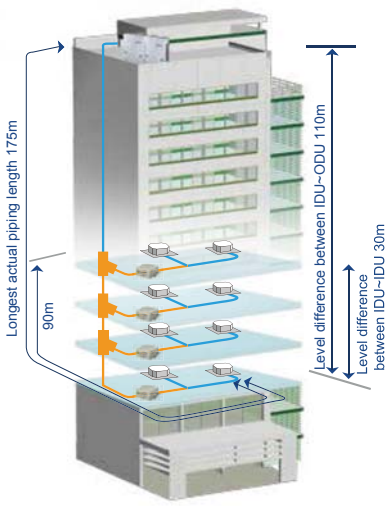
18-32HP

34-48HP

50-64HP

Long piping length

The solution supports an incredible piping length of 1.000m and level difference of 110m, making it perfect for large projects.

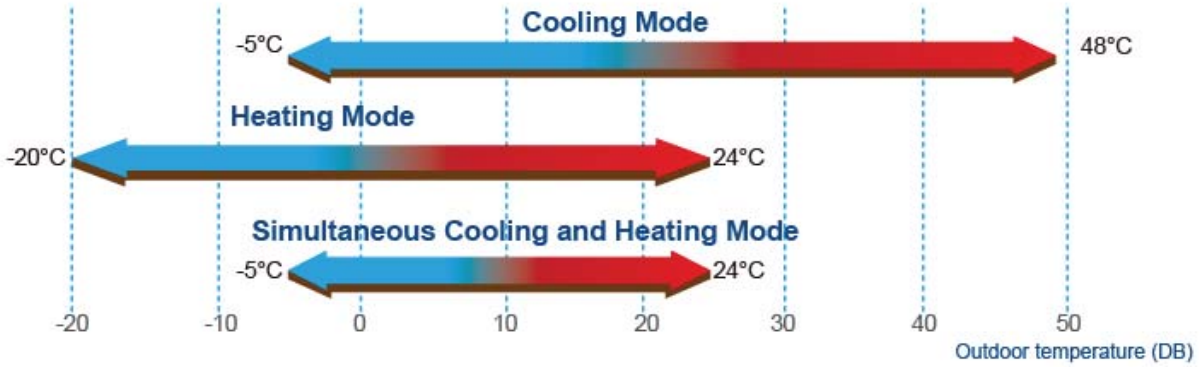


			Permitted value (m)
Piping length	Actual total piping length		1000*
	Longest piping	Actual length	175
		Equivalent length	200
	Equivalent piping length from the farthest IDU to the first indoor branch joint		40/90*
	Equivalent piping length from MS to its downstream indoor unit		40
Level difference	Level difference between indoor and outdoor units	Outdoor unit up	70
		Outdoor unit down	110
	Level difference between indoor units		30

*Total pipe length is equal to two times — pipe length plus — pipe length.
*When the piping length from the farthest IDU to the first indoor branch joint is more than 40m, it needs to meet specific conditions according to the installation part of the technical manual to achieve 90m.

Wide operation temperature range

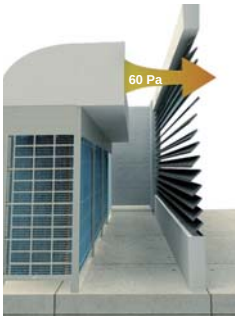
It operates stably at extreme temperatures ranging from -20°C to 48°C.



High external static pressure

Max. 60Pa external static pressure can be customized for the outdoor unit, flexible to build-in installation.

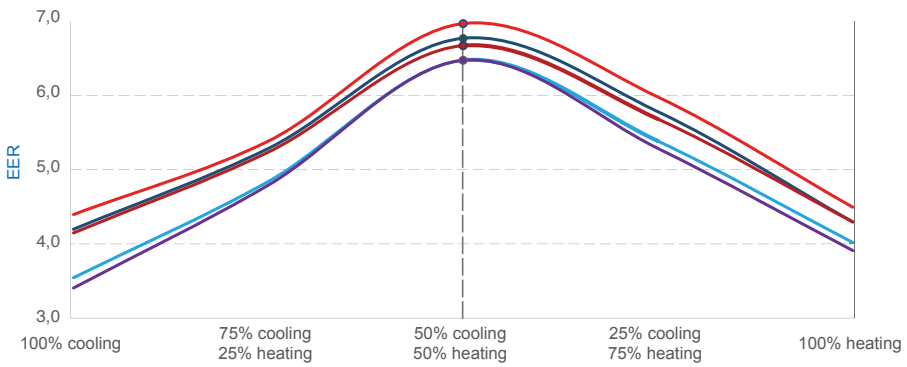
A standard 0-20Pa external static pressure is equipped by default for all outdoor units. 20-40Pa external static pressure can be customized for 14, 16HP outdoor units, and 20-60Pa can be customized for 8, 10, 12HP outdoor unit.



High Efficiency

High EER

Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating, maximising energy efficiency, reducing electricity costs and leading to high partload efficiencies (up to 7,0 in the 8HP catagory).



EER in simultaneous cooling and heating mode are based on the following condition:
Outdoor temperature 7°CDB/6°CWB, indoor temperature 27°CDB/19°CWB for cooling, indoor temperature 20°CDB for heating.

- 8HP, up to 7,0
- 10HP, up to 6,8
- 12HP, up to 6,7
- 14HP, up to 6,5
- 16HP, up to 6,5

All DC inverter technology

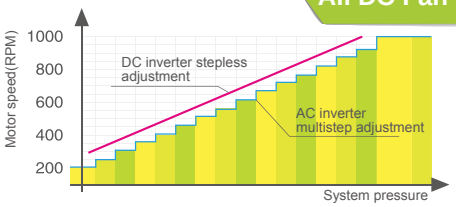
All DC inverter compressors make the capacity output better distributed, and always work at 60-140Hz which is the most efficient range. It makes the efficiency more than 30% higher than the normal.

All DC Inverter Compressor

- New structure enhances mid-frequency performance
- Specially designed scroll profile for R410A
- More compact, weight reduced by 50%
- Advanced permanent magnet DC motor improves the low frequency band performance

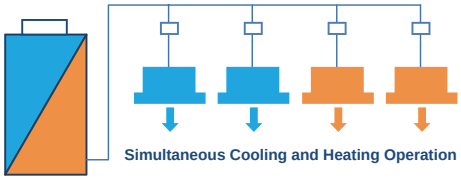
According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance.

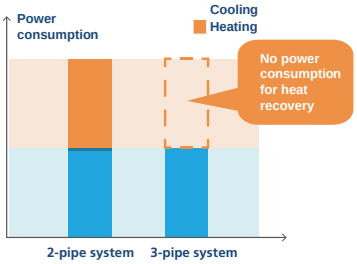
All DC Fan Motors



Heat recovery, more efficiency

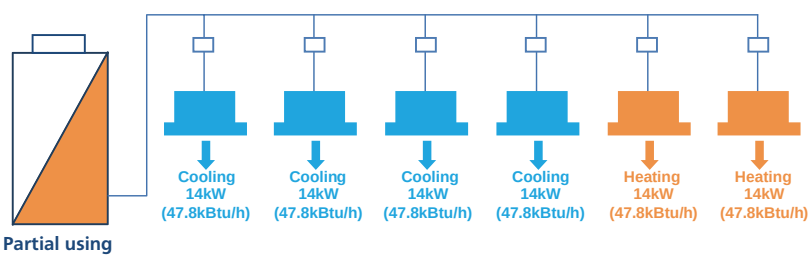
Simultaneous heating and cooling in different zones, more energy saving by heat recovery from one space to another which saves up to 50% in costs compared with a conventional heat pump system.





Heating capacity automatic adjustment

Two parts condenser individual design, the unit can distribute a part of evaporator to be as condensing area according to the heating load requirement to improve the utilization rate of the condenser.



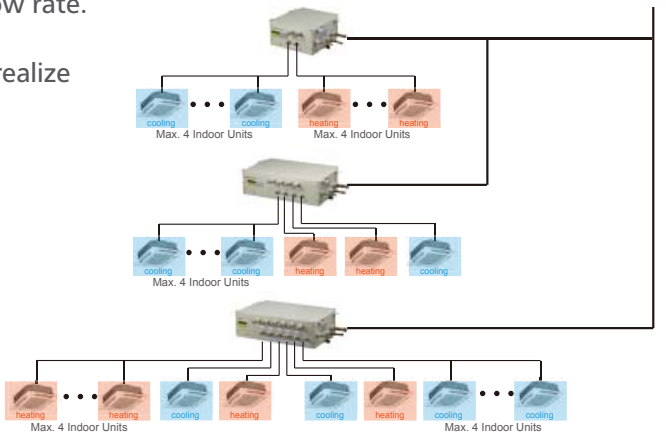
Enhanced Comfort

Cooling and heating simultaneous

Simultaneous cooling and heating achieved for new designed MS (Mode Switch) equipment.

The outdoor unit individual controls the operation mode of each group indoor unit to achieve simultaneous heating and cooling in one system under the MS equipment which adopts solenoid valve to precise control refrigerant flow rate.

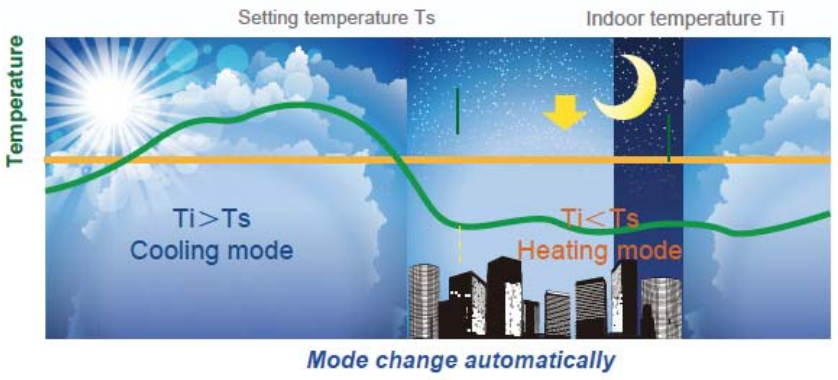
The indoor units connect to the same MS can realize simultaneous cooling and heating operation.



Auto mode control

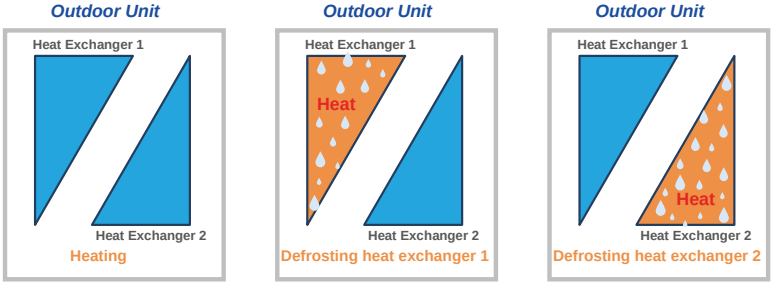
At the auto mode, the indoor unit can change the operation mode, to control the indoor side temperature at a constant temperature demanded.

Unit change to cooling mode at daytime, when indoor temperature is higher than setting temperature, and change to heating mode at nighttime, when indoor temperature is lower than setting temp.



Continuous heating during defrost operation

Each heat exchanger is defrosted by using heat transferred from one heat exchanger to the other in the outdoor unit. Defrost has no impact on the indoor unit on heating mode.



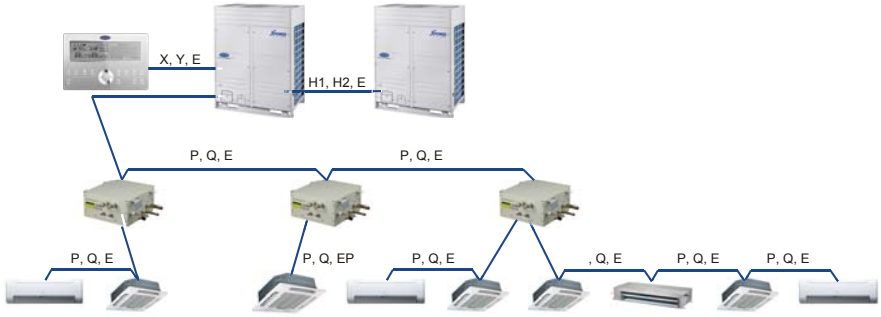
Easier Installation and Service

Remote addressing

Addressing indoor units are able to be done just by pressing the button of the controller.
No need to set the address by the DIP switch one by one.
Wired controller and wireless controller can enquire and modify every indoor units address.

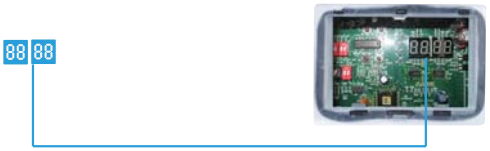
Simple communication wiring

Centralized controller (CCM03) can connect from indoor side or outdoor side (XYE terminals) at will. Only one group of communication wire of PQE, achieved both of communication for indoor & outdoor unit and network. It's more convenient for communication wiring.

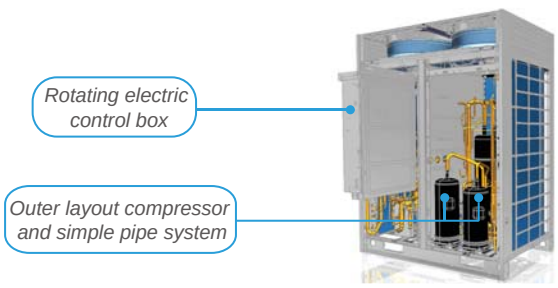


Professional structure design for easy maintainence

The check window reserved on electric control box provides a convenient spot checking and status enquiry.
With the 4 bits digital tube LED display, it is very convenient to show the data of the system, such as pressure, compressor frequency, error code, discharge temperature etc., which can make the maintenance, installation
and commissioning easier.



Compressor is near the outside, and there is simple pipe system for convenient maintenance.
The newly designed rotating control box is so excellent that it can rotate in a wide angle.
It is convenient for the inspection and maintenance of the pipeline system and greatly reduced the time of dismount the electric control box.



Outdoor Unit Specifications

Model			38VF008T119010	38VF010T119010	38VF012T119010	38VF014T119010	38VF016T119010
Power supply		V/Ph/Hz	380-415/3/50				
Cooling	Capacity	kW	25,2	28,0	33,5	40,0	45,0
	Power input	kW	5,73	6,67	8,07	11,30	13,24
	EER	kW/kW	4,40	4,20	4,15	3,54	3,40
Heating	Capacity	kW	27,0	31,5	37,5	45,0	50,0
	Power input	kW	6,00	7,33	8,72	11,19	12,79
	COP	kW/kW	4,50	4,30	4,30	4,02	3,91
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130	50-130	50-130
	Max. quantity		13	16	20	23	26
Sound pressure level		dB(A)	57	57	58	60	60
Pipe connections	Liquid pipe	mm	Φ9,53	Φ12,7	Φ12,7	Φ15,9	Φ15,9
	Low pressure gas pipe	mm	Φ22,2	Φ22,2	Φ25,4	Φ28,6	Φ28,6
	High pressure gas pipe	mm	Φ19,1	Φ19,1	Φ19,1	Φ22,2	Φ22,2
	High pressure gas balance pipe	mm	Φ19,1	Φ19,1	Φ19,1	Φ19,1	Φ19,1
	Oil balance pipe	mm	Φ6,4	Φ6,4	Φ6,4	Φ6,4	Φ6,4
Fan motor	Type		DC	DC	DC	DC	DC
	Quantity		2	2	2	2	2
	Air flow rate	m^3/h	12.000	12.000	13.000	15.000	15.000
	ESP	Pa	0-20 (default)			0-20 (default)	
		Pa	20-60 (customized)			20-40 (customized)	
DC inverter compressor	Quantity		1	1	1	2	2
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Factory charging	kg	10	10	10	13	13
Net dimension (W×H×D)		mm	1.250×1.615×765				
Packing size (W×H×D)		mm	1.305×1.790×820				
Net weight		kg	255	255	255	303	303
Gross weight		kg	273	273	273	322	322
Operating temperature range	Cooling	°C	-5-48				
	Heating	°C	-20-24				
	Simultaneous cooling and heating	°C	-5~24				

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.

MS Specifications

MS equipment which can be connected multiple indoor units

Model				MSFT-01C-CM	MSFT-02C-CM	MSFT-04C-CM	MSFT-06C-CM
Max. indoor unit groups				1	2	4	6
Max. number of each group indoor units				4	4	4	4
Max. number of all downstream indoor units				4×1=4	4×2=8	4×4=16	4×6=24
Max. capacity of each group indoor units			kW	16	16	16	16
Total capacity of all downstream indoor units			kW	≤16	≤28	≤45	≤45
Piping connections	Connect to outdoor unit	Liquid pipe	mm	Φ9,53	Φ12,7	Φ15,9	Φ15,9
		High pressure gas pipe	mm	Φ15,9	Φ19,1	Φ22,2	Φ22,2
		Low pressure gas pipe	mm	Φ19,1	Φ25,4	Φ31,8	Φ31,8
	Connect to indoor unit	Liquid pipe	mm	Φ9,53	Φ9,53	Φ9,53	Φ9,53
		Gas pipe	mm	Φ15,9	Φ15,9	Φ15,9	Φ15,9
Net dimension (W×H×D)			mm	630×225×600	630×225×600	960×225×600	960×225×600
Packing size (W×H×D)			mm	725×325×685	725×325×685	1055×325×685	1055×325×685
Net weight			kg	18	19,5	31	35
Gross weight			kg	25	27	40	44,5

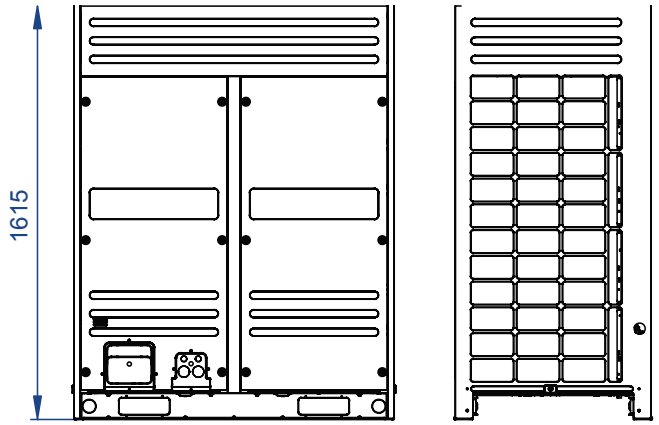
MS equipment which can be connected only one indoor unit

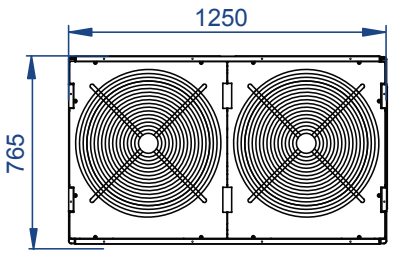
Model				MSFT-02E-CM	MSFT-04E-CM
Max. number of all downstream indoor units				1	1
Capacity of downstream indoor unit			kW	20~28	40~56
Piping connections	Connect to outdoor unit	Liquid pipe	mm	Φ12,7	Φ15,9
		High pressure gas pipe	mm	Φ19,1	Φ22,2
		Low pressure gas pipe	mm	Φ25,4	Φ31,8
	Connect to indoor unit	Liquid pipe	mm	Φ9,53	Φ9,53
		Gas pipe	mm	Φ15,9	Φ15,9
Net dimension (W×H×D)			mm	630×225×600	960×225×600
Packing size (W×H×D)			mm	725×325×685	1055×325×685
Net weight			kg	19,5	31
Gross weight			kg	27	40

Note:
Sound values are measured in a semi-anechoic room, at a position 1m below the MS equipment in mode switch condition.
It is not recommended to install in the place where high noise performance is required.

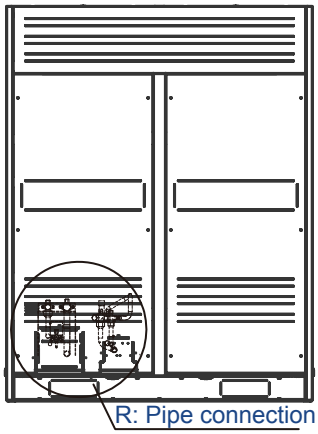
Dimensions

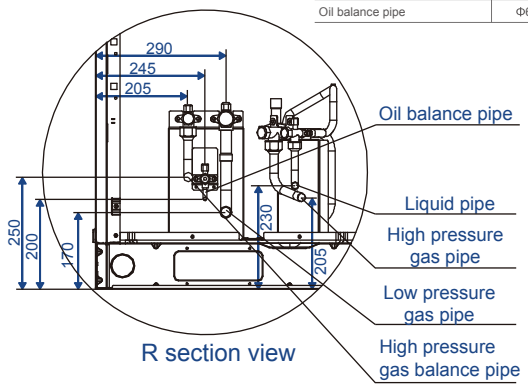
Body dimension



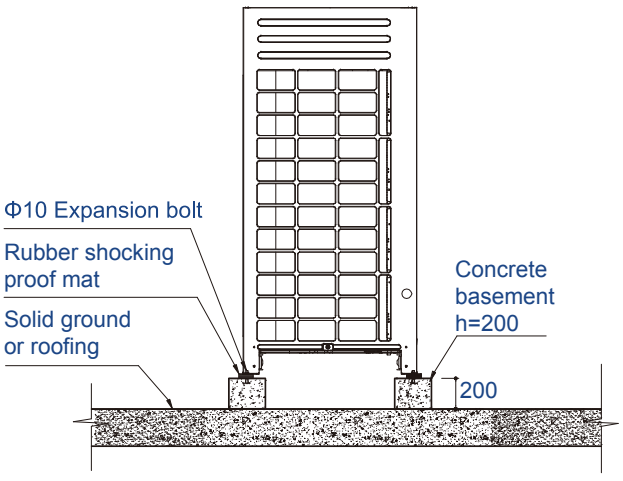


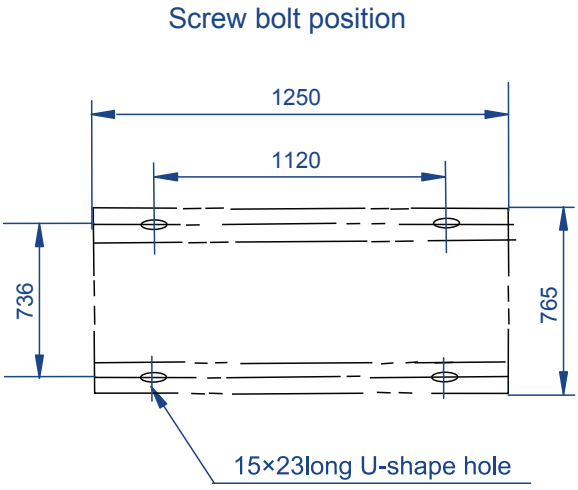
Piping \ HP	8/10	12	14/16
Liquid pipe	Φ12.7	Φ15.9	Φ15.9
Low pressure gas pipe	Φ22.2	Φ25.4	Φ28.6
High pressure gas pipe	Φ19.1	Φ19.1	Φ22.2
High pressure gas balance pipe	Φ19.1	Φ19.1	Φ19.1
Oil balance pipe	Φ6	Φ6	Φ6





Installation dimension





XPower DC Inverter
Water Cooled W Series

XPower DC Inverter water cooled W series is the perfect combination of water and refrigerant systems. The main unit achieves the world's largest capacity of 36HP and provide the highest energy efficiency for cooling and heating. The series boasts excellent energy saving features, flexible system design and maximized comfort. In addition to traditional cooling towers / boilers, there are more water source options including river water, soil, solar energy, sea water, lake water, ground water, waste heat from production, sewage or waste water.

Recommended combination table

Model	Nº of Outdoor Units	Nº of Compressors	Outdoor Unit Combination			Maximum Nº of Connectable Indoor Units	Capacity (kW)	
			8HP	10HP	12HP		Cooling	Heating
8HP	1	1	1			13	25,2	27
10HP	1	1		1		16	28	31,5
12HP	1	1			1	20	33,5	37,5
16HP	2	2	2			26	50,4	54
18HP	2	2	1	1		29	53,2	58,5
20HP	2	2		2		33	56	63
22HP	2	2		1	1	36	61,5	69
24HP	2	2			2	39	67	75
26HP	3	3	2	1		43	78,4	85,5
28HP	3	3	1	2		46	81,2	90
30HP	3	3		3		50	84	94,5
32HP	3	3		2	1	53	89,5	100,5
34HP	3	3		1	2	56	95	106,5
36HP	3	3			3	59	100,5	112,5

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27ºC DB/19ºC WB; Main unit ambient temperature 35ºC DB/24ºC WB; Water inlet temperature 30°C.
Heating: Indoor temperature 20ºC DB/15ºC WB; Main unit ambient temperature 7ºC DB/6ºC WB; Water inlet temperature 20°C.
Piping length: Interconnecting piping length is 5m, level difference is 0m.
The above combination models are factory-recommended models.

Features

Wide Application Range

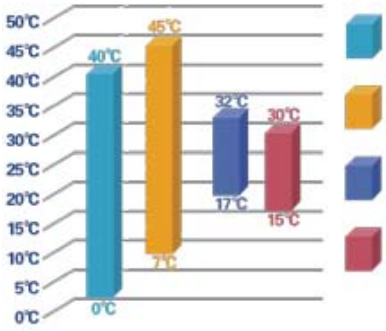
Wide range of outdoor units

The main units capacity range from 8HP up to 36HP. Maximum 59 indoor units with capacity up to 130% of total main units can be connected in one refrigeration system.

8, 10,12HP	16, 18, 20, 22, 24HP	26, 28, 30, 32, 34, 36HP

Wide operation temperature range

Main unit water inlet flow: 8HP: 2,7~8,1mÑ/h; 10HP: 3~9mÑ/h; 12HP: 3,6~10,8mÑ/h.



Main unit ambient temperature: 0°C~40°C

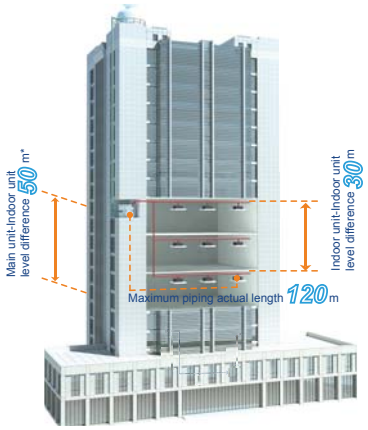
Main unit water inlet temperature: 7°C~45°C

Indoor temperature in cooling mode: 17°C~32°C

Indoor temperature in heating mode: 15°C~30°C

Long piping length

In the refrigerant piping system, total piping length can extend up to 300m with a longest piping actual length of 120m and a level difference between indoor and main unit of 50m. The maximum pressure at the water side can be as high as 1.96MPa, enabling a flexible design in high-rise buildings.
Water piping does not enter occupied spaces, so there is little chance of water leaks.


Main unit-Indoor unit level difference 50m*
Indoor unit-Indoor unit level difference 30m
Maximum piping actual length 120m

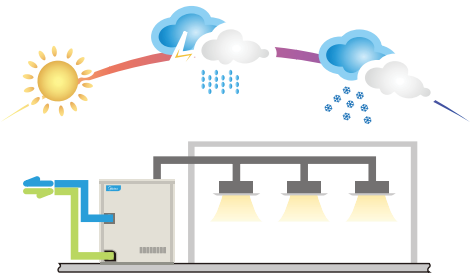
			Permitted value (m)
Piping length	Actual total piping length		300
	Longest piping	Actual length	120
		Equivalent length	150
Level difference	Equivalent piping length from the farthest IDU to the first indoor branch joint		40*
	Level difference between indoor and main unit	Main unit up	50
		Main unit down	40
	Level difference between indoor units		30

*The allowable length can extend to 90m under certain conditions.
Please refer to the service manual for details.

High Reliability

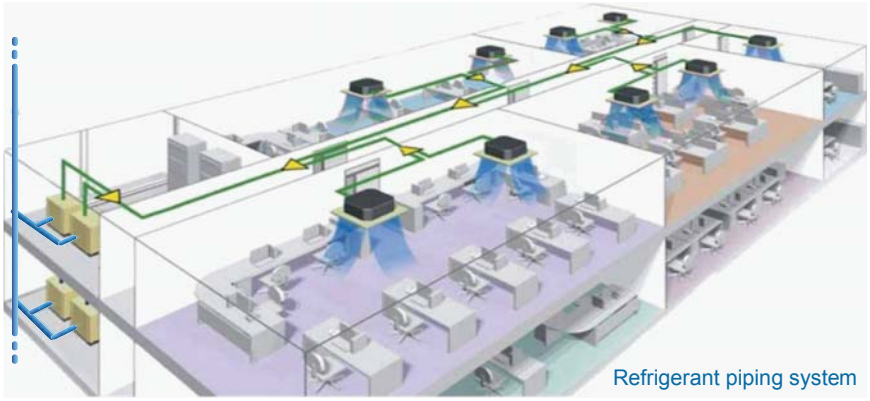
Climate-resistant units

Due to the stable source of water as the cold/heat source of the system, the air conditioning capacity is not affected by environmental temperature.
When heating in winter, the unit does not implement the frost/defrosting process, which stabilizes and strengthens the heating effect.



No water leakage

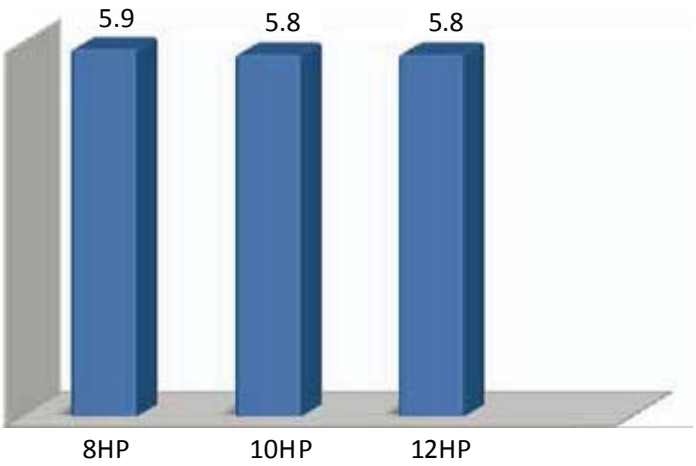
No water pipe installed indoors, no water leakage risks.



High Efficiency

High IPLV

It combines water system and refrigerant system perfectly. IPLV(C) reaches as high as 5,9. Compared with air-cooled VRF, it saves much energy.

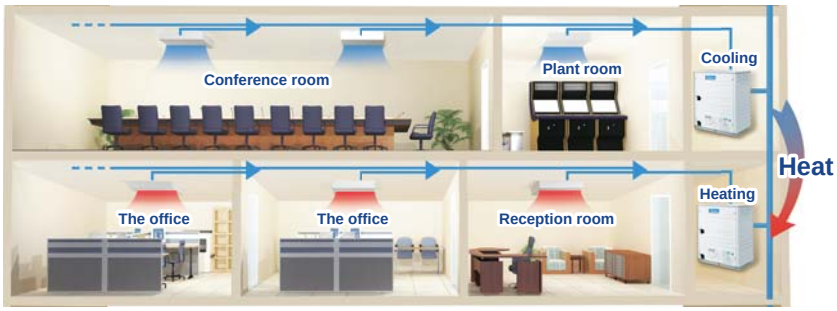


High efficiency double-pipe heat exchanger

With the innovative designed double-pipe heat exchanger, the water quality required is low. The water side has large circulation area, and it is not easy to get stuck, higher reliability, easy to clean and maintain.

Water side heat recovery function

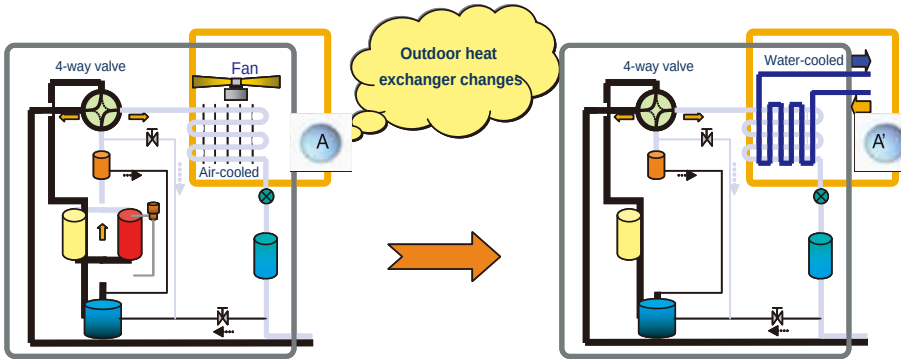
In the modern large-scale buildings, the load between the internal and external areas is different. It may occur situations that both cooling and heating are required. The W series modular design, not only can realize meticulous system division in different areas but also can realize heat recovery at the same time, significantly improved energy efficiency.



Enhanced Comfort

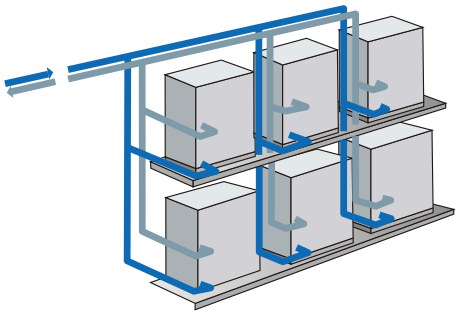
Low noise

Without outdoor units fan noise and fully enclosed design which realize lower noise.



Modular design

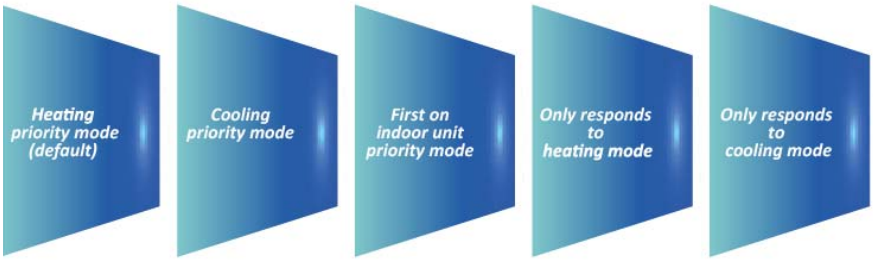
The three basic models, 8,10 and 12HP have the same size and weight.
The modular design enables one main unit to be installed above another, which greatly saves space.
Various installation environments include warehouses, basements, closed balconies, corridors, and factories.



More Intelligent

Various locking modes

A range of available modes can meet a wide variety of user needs.


Heating priority mode (default)
Cooling priority mode
First on indoor unit priority mode
Only responds to heating mode
Only responds to cooling mode

Easier Installation and Service

Easy access

The checking window on electric control box for convenient spot checking and status enquiry.

Compressor is located near the door, which simplifies checks and enables valve or compressor parts to be replaced easily.

Outdoor Unit Specifications

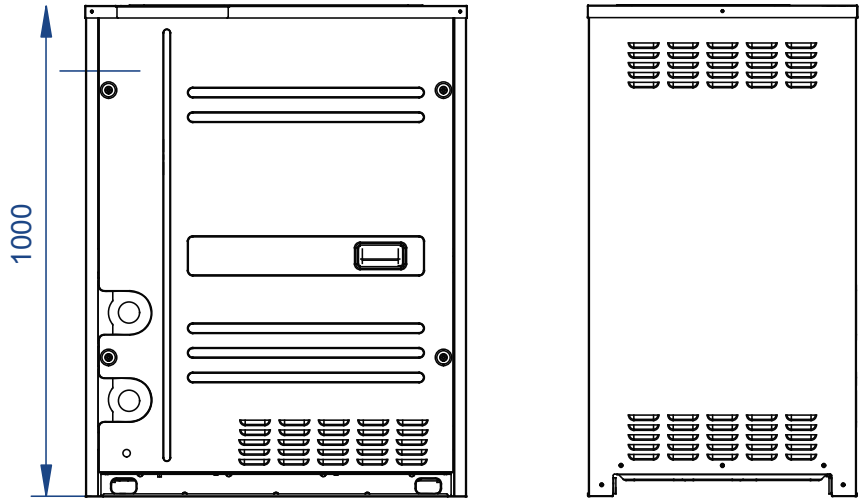
Model			8HP	10HP	12HP
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	25,2	28,0	33,5
	Power input	kW	4,8	6,10	8,00
	EER	kW/kW	5,25	4,59	4,19
Heating	Capacity	kW	27,0	31,5	37,5
	Power input	kW	4,45	5,83	7,80
	COP	kW/kW	6,07	5,40	4,81
IPLV©			5,90	5,80	5,80
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		13	16	20
Sound pressure level		dB(A)	51	52	52
Refrigerant pipe connections	Liquid pipe	mm	Φ12,7	Φ12,7	Φ15,9
	Gas pipe	mm	Φ25,4	Φ25,4	Φ31,8
	Oil blance pipe	mm	Φ6,35	Φ6,35	Φ6,35
Drainage pipe outside diameter		mm	Φ10		
Water side connecting pipe		mm	Φ31,8		
DC inverter compressor	Quantity		1		
Heat exchanger	Type		Double-pipe heat exchanger		
	Rated water flow volume	m^3/h	5,4	6	7,2
	Pressure drop	kPa	35	40	48
	Max.pressure of water pipe side	MPa	1,98		
Refrigerant	Type		R410A		
	Factory charging	kg	2		
Design pressure (High/Low)		MPa	4,4/2,6		
Net dimension (W×H×D)		mm	780×1.000×550		
Packing size (W×H×D)		mm	845×1.170×600		
Net weight		kg	146	146	147
Gross weight		kg	155	155	156
Water inelt temperature		°C	7-45		
Ambient temperature range		°C	0-40		
Ambient humidity range			Below 80%		

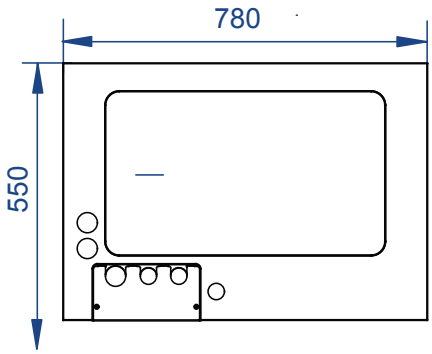
Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Main unit ambient temperature 35°C DB/24°C WB; Water inlet temperature 30°C.
Heating: Indoor temperature 20°C DB/15°C WB; Main unit ambient temperature 7°C DB/6°C WB; Water inlet temperature 20°C.
Piping length: Interconnecting piping length is 5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1m above the floor.

Outdoor Unit Dimensions

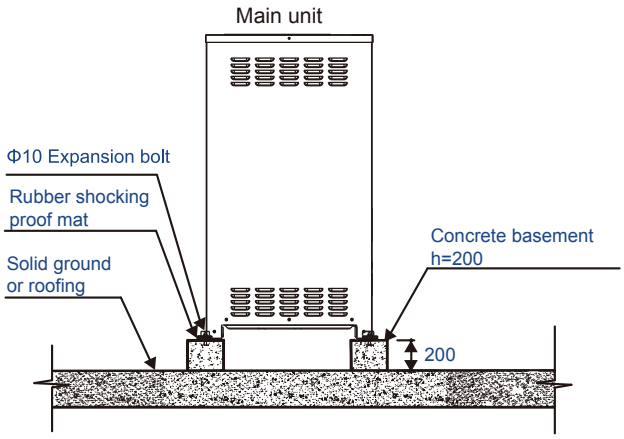
Body dimension

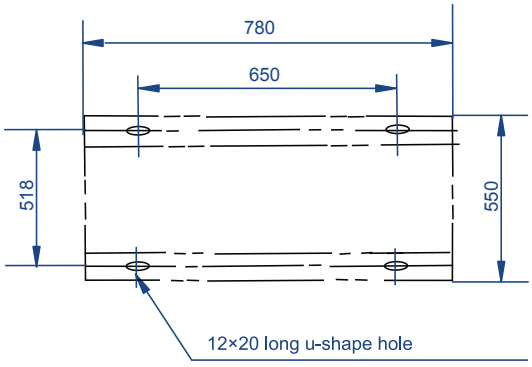
Unit: mm





Installation dimension





XPower DC Inverter
Individual I Series

It is designed to optimize performance and better match varieties of application requirement.
It is focused on providing better air solutions for the small and middle-sized buildings.

Features

Wide Application Range

Wide range of outdoor units

The capacity range of outdoor unit is from 56kW to 67kW with three models and two air-discharge type. Maximum 39 indoor units with capacity up to 130% of total outdoor units can be connected in one refrigeration system.

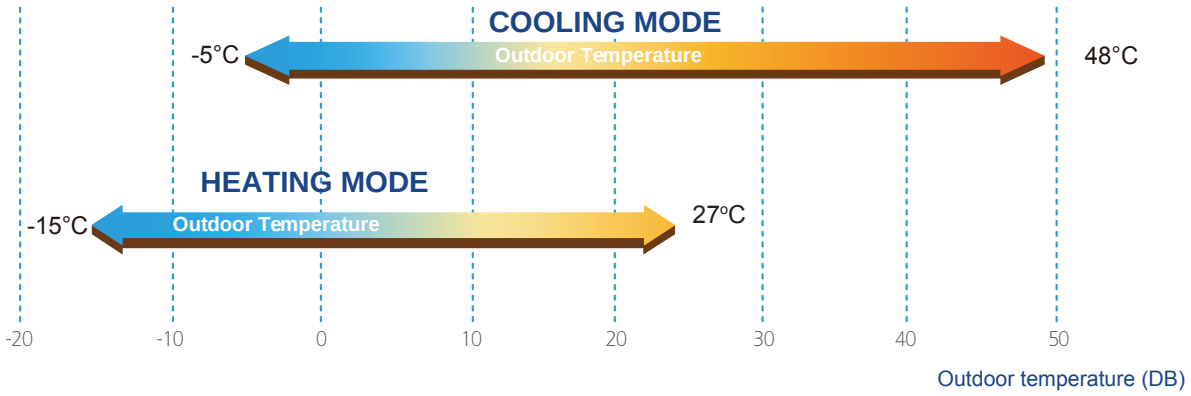
56kW	61.5/67kW

Flexible indoor units connection

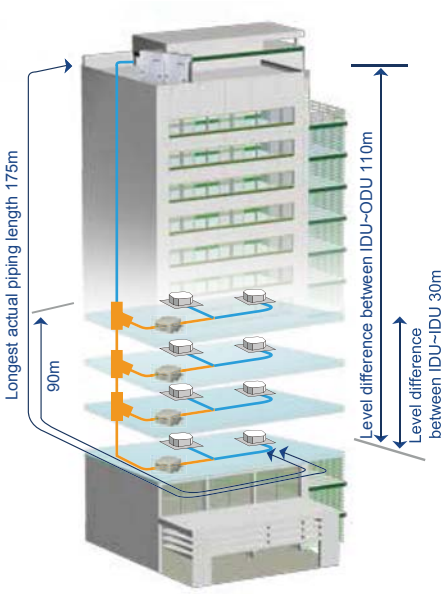
I Series with intelligent control gives you independent zoning control with maximum flexibility.
A single outdoor unit supports up to 39 indoor units, freeing up considerable space outside. Use your backyard more wisely with much more space available created by less number of outdoor units.

Wide operation range

It operates stably at extreme temperatures ranging from -15°C to 48°C.



Long piping length



			Permitted value
			56-67kW
Piping length	Total piping length (Actual)		1000*1
	Longest piping	Actual length	175
		Equivalent length	200
	Equivalent piping length from the farthest IDU to the first indoor branch joint		40/90*2
Level difference	Level difference between IDU~ODU	Outdoor unit up	70
		Outdoor unit down	110
	Level difference between IDU~IDU		30

*1: Total pipe length is equal to two times pipe length plus pipe length.
*2: When the piping length from the farthest IDU to the first indoor branch joint is more than 40m, it needs to meet specific conditions according to the installation part of the technical manual to achieve 90m.

High external static pressure

Max. 40Pa external static pressure can be customized for the top air-discharge outdoor unit type, flexible to build-in installation.
A standard 0-20Pa external static pressure is equipped by default for the top air-discharge outdoor unit type. 20-40Pa external static pressure can be customized.

High Efficiency

High efficiency DC inverter compressor

I Series adopts high efficiency DC inverter compressors.

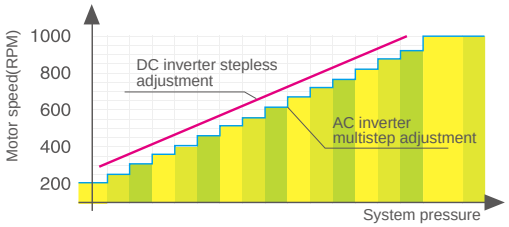
High efficiency DC inverter scroll compressor (56 - 67kW)

- New structure enhances mid-frequency performance
- Specially designed scroll profile for R410A
- More compact, weight reduced by 50%
- Advanced permanent magnet DC motor improves low-frequency band performance

High efficiency DC fan motor

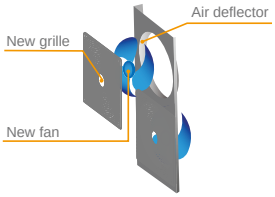
According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance.

DC motor



Optimized fan shape and fan grille

Optimized fan blade shape with new air outlet grille enhanced air flow volume which greatly improves fan performance and decreases noise.

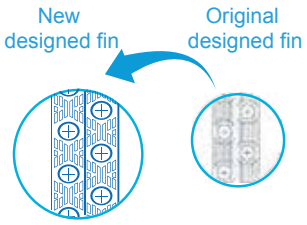


Side air discharge type

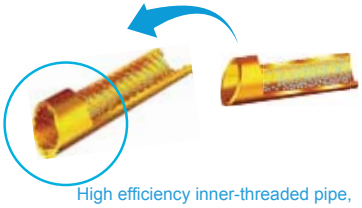
Top air discharge type

High performance heat exchanger

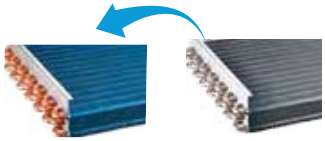
- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.



Reduce air resistance



High efficiency inner-threaded pipe, enhance heat transfer.



Hydrophilic film fins + inner-threaded pipes

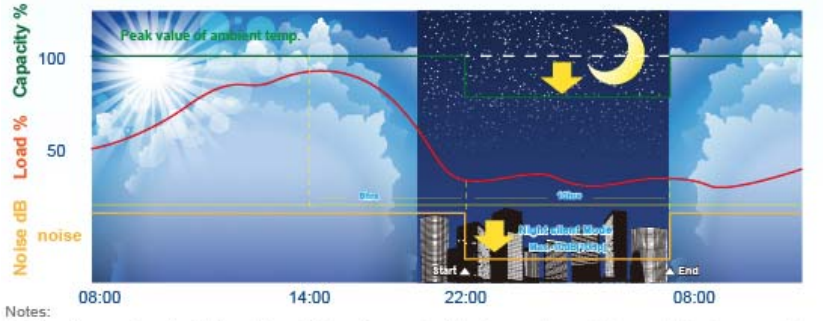
Enhanced Comfort

Night silent operation mode

High comfort outdoor unit's multi-choice of silent mode during the night.
Super silent operation mode can reduce sound level further, minimum 46,8 dB (A).

Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

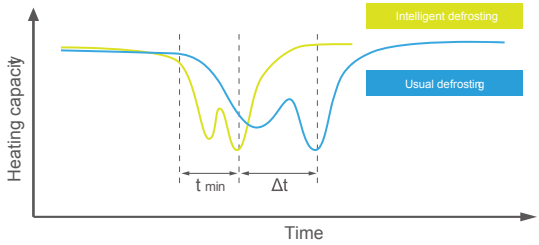
-Mode 1: X: 6 hours, Y: 10 hours
-Mode 2: X: 8 hours, Y: 10 hours
-Mode 3: X: 6 hours, Y: 12 hours
-Mode 4: X: 8 hours, Y: 8 hours



Notes:
This function can be activated by setting at site. Temperature(load) curve shown in the graph is just an example.

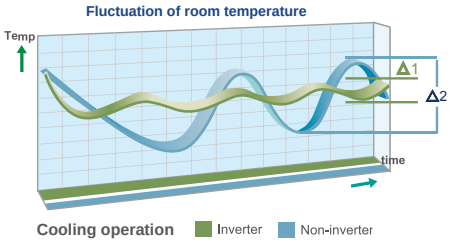
Intelligent defrosting technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.
Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.



Quick warm-up & cool-down design and less temperature fluctuation

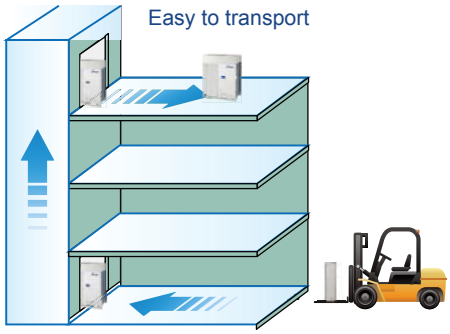
By utilizing the benefits of the inverter compressor, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution.
Less temperature fluctuation will create a better living environment.



Easier Installation and Service

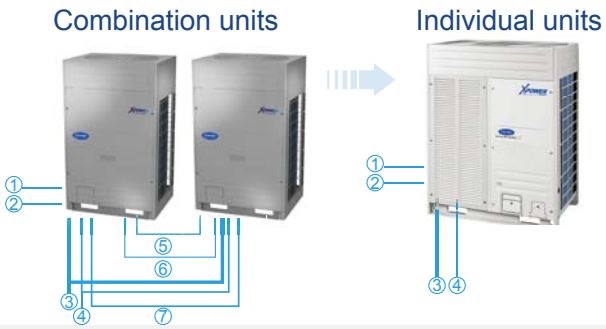
Compact design for effective use of space

Compact size and light weight design minimizes the installation footprint, reduces the installation floor load, and is easier for transportation. For some projects the units can even be transported through the elevator or forklift, reduce access problem at the jobsite.



Integrated design enhance installation efficiency and quality

Compare with combination units, the individual units don't need complicated piping and wiring in the jobsite.
It eliminates the communication wire, power wire, oil balance pipe, and refrigerant distributors between units.



① Power wire and grounding wire
② Communication wire
③ Main gas pipe
④ Main liquid pipe
⑤ Power wire and grounding wire
⑥ Communication wire
⑦ Oil balance pipe

Less possibility of vapor and moisture enter the system

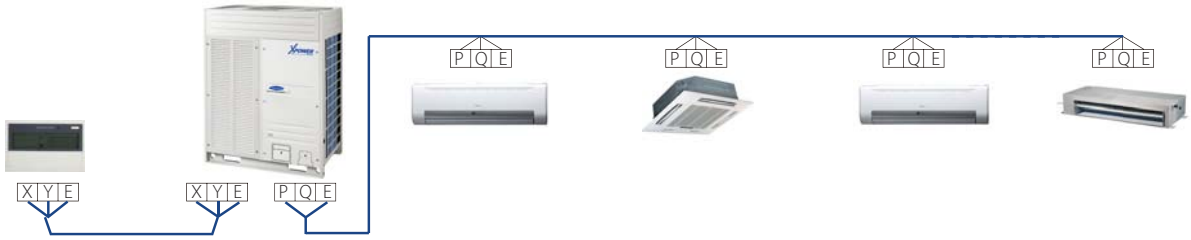
There are more brazing joint in the combination system, therefore vapor and moisture is easy to enter the system. Thanks to the reduced joint in the individual system, it minimize the possibility of moisture enter the system.

Combination units

Individual units

Simple signal line connection

Centralized controller (CCM03 or CCM30) can be connected from indoor side or outdoor side (XYE terminals) at will. Only one group of communication wire of PQE, achieved both of communication for indoor & outdoor unit. It's more convenient for communication wiring.



Auto addressing

Outdoor unit can distribute addresses
for indoor unit automatically.
Wireless and wired controllers can query and modify
each indoor unit's address.

Easy access

Reserved checking window on electric control box for convenient spot checking and status enquiry.

Compressors locate at near door position which is convenient for checking or replacing the valves or compressor parts.

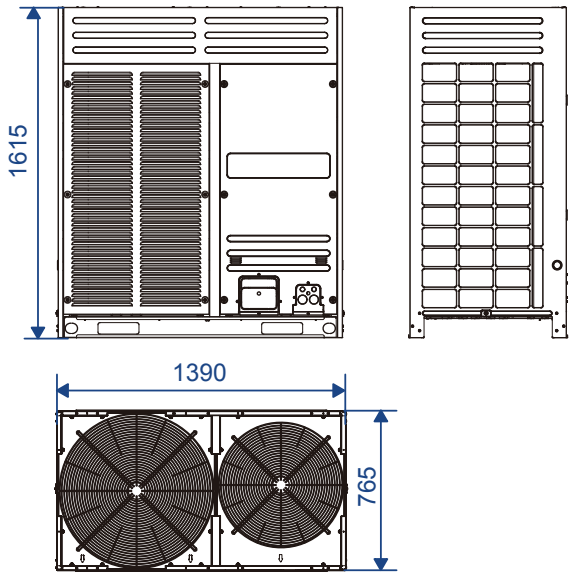
Outdoor Unit Specifications

Model			38VR020H119013	38VR022H119013	38VR024H119013
Power supply		V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	56.0	61.5	67.0
	Power input	kW	17.0	18.8	20.8
	EER	kW/kW	3.30	3.27	3.22
Heating	Capacity	kW	63.0	69.0	75.0
	Power input	kW	16.0	17.9	19.8
	COP	kW/kW	3.94	3.86	3.79
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130
	Max. quantity		33	36	39
Sound pressure level		dB(A)	62	63	63
Pipe connections	Liquid pipe	mm	Φ19.1		
	Gas pipe	mm	Φ31.8		
Fan motor	Type		DC+AC		
	Quantity		2		
	Air flow rate	m^3/h	20.000	23.000	23.000
	ESP	Pa	0~20 (default)		
		Pa	20~40 (customized)		
DC inverter compressor	Quantity		1		
Fixed inverter scroll compressor	Quantiy		2	2	2
Refrigerant	Type		R410A	R410A	R410A
	Factory charging	kg	17	18.5	18.5
Net dimension (W×H×D)		mm	1,390×1,615×765	1,585×1,615×765	
Packing size (W×H×D)		mm	1,455×1,790×830	1,650×1,810×840	
Net weight		kg	360	385	390
Gross weight		kg	375	400	405
Operating temperature range	Cooling	°C	-5~48		
	Heating	°C	-20~27		

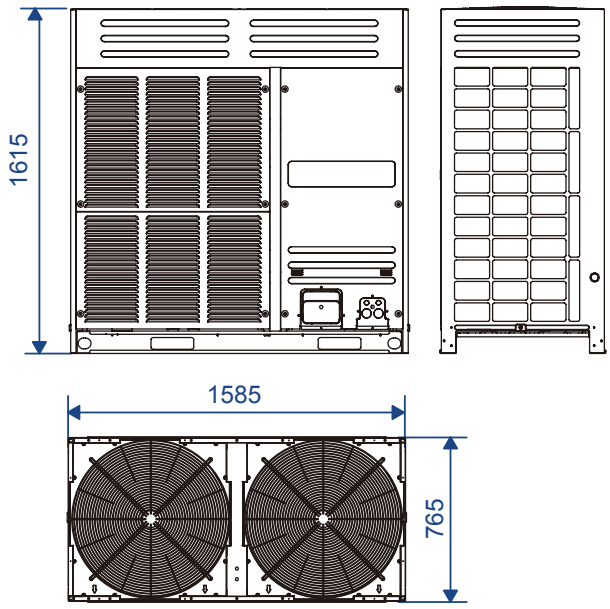
Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27ºC DB/19ºC WB; Outdoor temperature 35ºC DB/24ºC WB.
Heating: Indoor temperature 20ºC DB/15ºC WB; Outdoor temperature 7ºC DB/6ºC WB.
Piping length: Interconnecting piping length is 7.5m, level difference is 0m.
Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

Outdoor Unit Dimensions

56kW



61,5/67kW



XPower Full DC Inverter
Mini VRF Series

XPower Full DC Inverter Mini VRF with DC inverter compressor and DC fan motor delivers a highly efficient solution for small commercial buildings. Four to nine rooms require only one outdoor unit, and individual control is enabled in each room.

Features

Wide Application Range

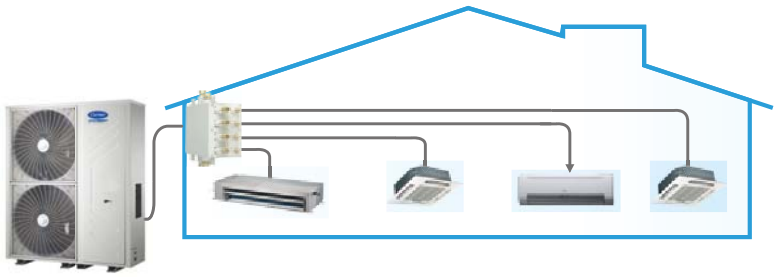
Wide range of outdoor units

The outdoor units capacity range from 8kW to 16kW which is ideal for small offices, villas, apartment and shops, making it perfect for commercial and residential application.

12/14/16 kW

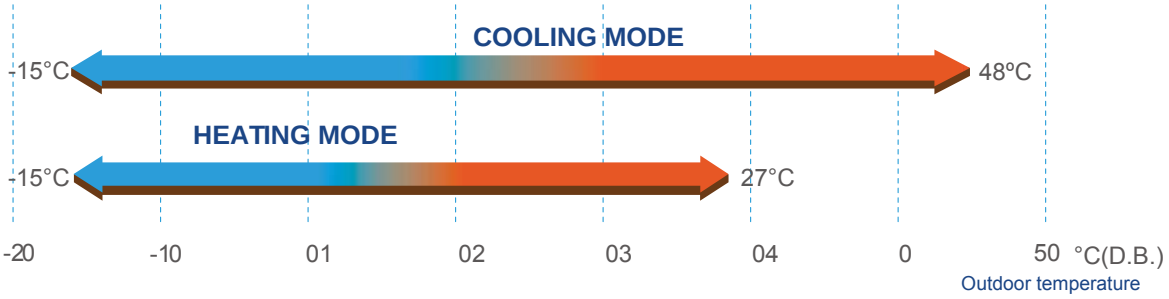
Flexible indoor units connection

Mini VRF with intelligent control gives you independent zoning control with maximum flexibility.
A single outdoor unit supports up to nine indoor units, freeing up considerable space outside. Use your backyard more wisely with much more space available created by less number of outdoor units.



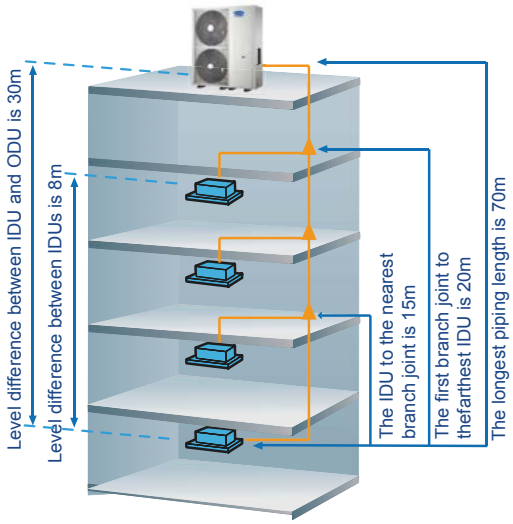
Wide operation temperature range

Mini VRF system operates stably at extreme temperature range from minus 15°C to 48°C.



Long piping design

The Mini VRF provides a total piping length possibility of 100m, a maximum height difference between outdoor and indoor units of 30m. The height difference between indoors unit can be up to 8m.
These generous allowances facilitate an extensive array of system designs.

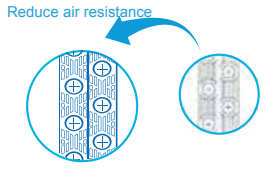

Level difference between IDU and ODU is 30m
Level difference between IDUs is 8m
The IDU to the nearest branch joint is 15m
The first branch joint to thefarthest IDU is 20m
The longest piping length is 70m

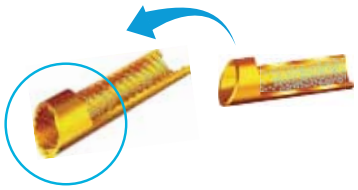
			Permitted value (m)
			12/14/16/18kW
Piping length	Actual total piping length*1		100
	Longest piping	Actual length	60
		Equivalent length	70
	Equivalent p iping length from the farthest I DU t o the first indoor branch joint		20
Level difference	Level difference between indoor and outdoor units	Outdoor unit up	30
		Outdoor unit down	20
	Level difference between indoor units		8

*1: Total pipe length is equal to all the liquid pipe or all the gas pipe length.

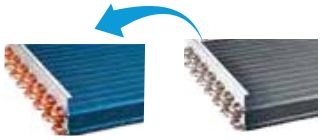
Enhanced Efficiency

High performance heat exchanger





High efficiency inner-threaded pipe, enhance heat transfer.



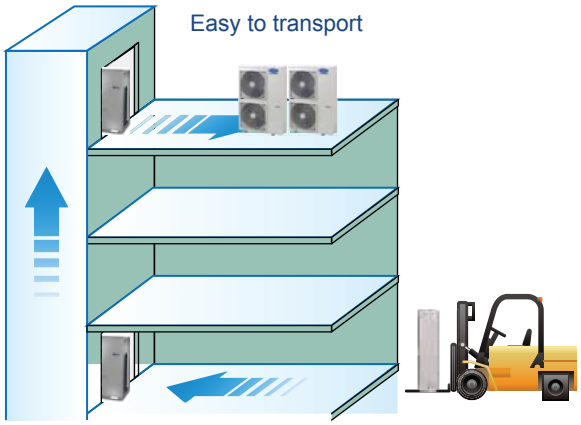
Hydrophilic fins + inner-threaded pipes

- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.
- The specially coated blue fins enhance durability and protect against corrosion from air, water and other corrosive agents, assures a longer coil service life.

Easier Installation and Service

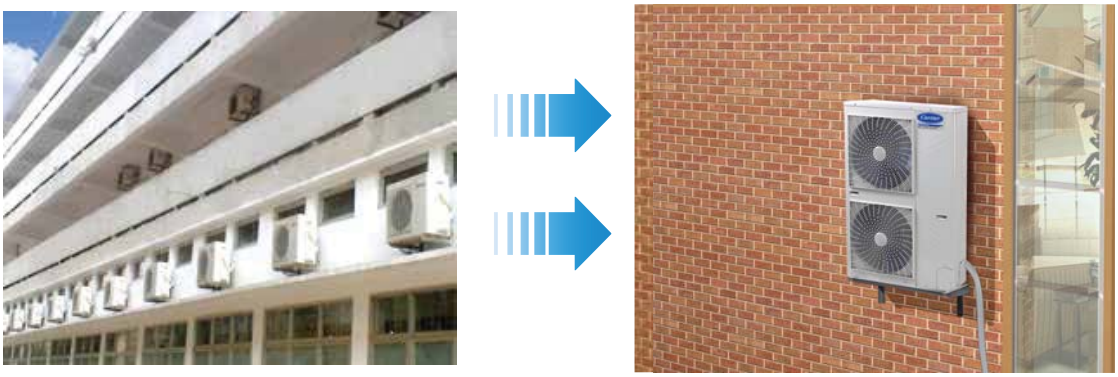
Easy Installation

Easy installation: No special area is required for outdoor units.
Easy transportaion: All outdoor units can be transported by elevator, which greatly simplifies installation and reduces time and labor.
The Mini VRF indoor and outdoor units are almost as easy to install as residential air conditioning systems, making them ideal for small offices and shops.



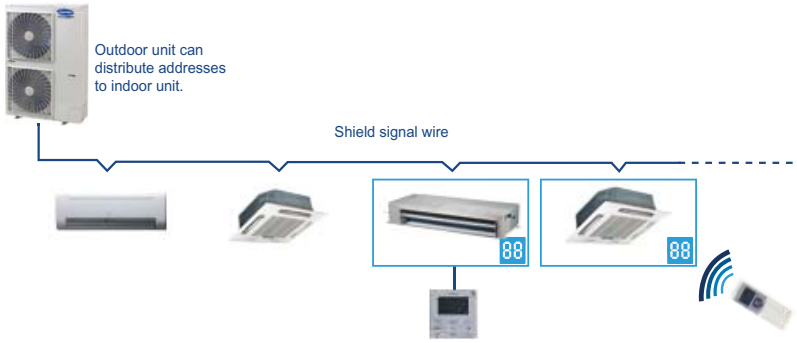
Space saving design

The Mini VRF units are slimmer and more compact, resulting in significant savings in installation space.
In some large residential and light commercial areas, such as villas, restaurants, usually it need more than one indoor unit, which in turn requires multiple outdoor units.
Mini VRF system removes this problem, and retains buildings' original aesthetics.



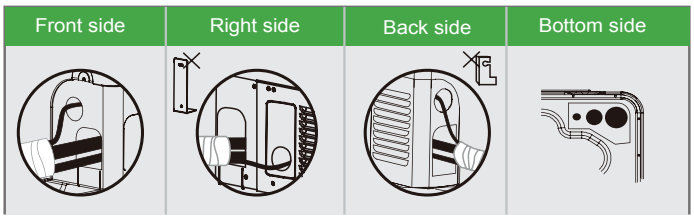
Auto addressing

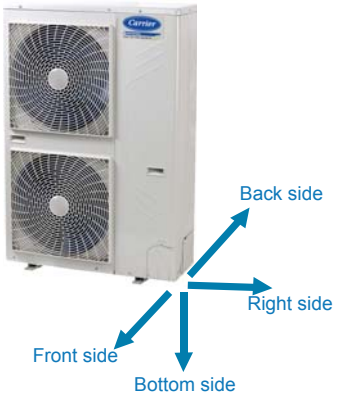
Addresses of indoor units can be set automatically by outdoor units.
Wireless controller can inquire and modify every indoor units address.



More convenience in installation

A four-direction space is available for connecting pipes and wiring in various installation sites.





More convenient piping connector - branch box

Easier and safer installation thanks to a branch box that simplifies piping work and the adoption of screw connection. Both left and right pipe flare connection from outdoor unit to branch box is reserved, which greatly simplifies field installation.

Two sets of pipe size converter are packed with branch box to transfer the pipe size from Φ6,35mm to Φ9,53mm and from Φ12,7mm to Φ15,9mm.

Low noise

The branch pipe is linear expansion design regulates the flow of refrigerant and reduces the noise. By locating the branch box in the ceiling or outside, noise generated by the branch box can be kept clear of living spaces, thus makes noise level to a minimum.

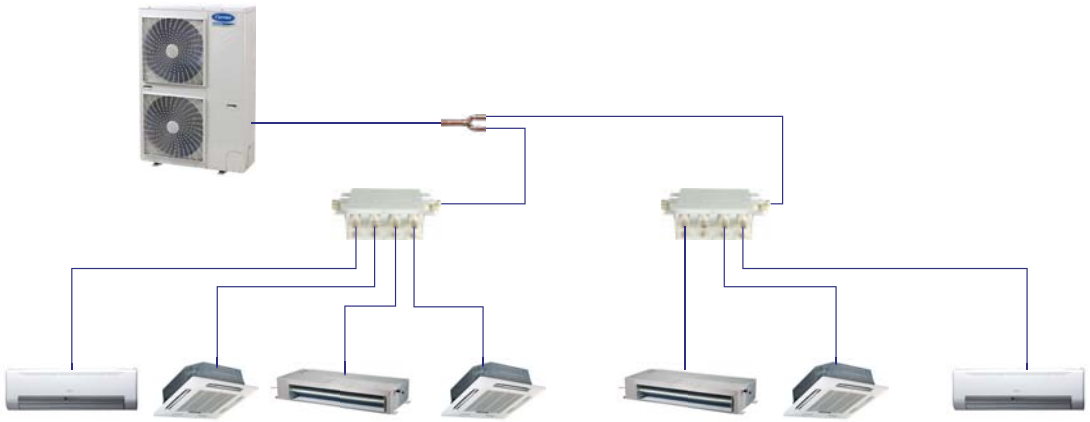
Brazing-free quick installation

All the piping leading to and from the branch box is connected using screw joints,which can be installed quickly and easily.

Indoor installation

The branch box can be installed in the ceiling rather than outside. Removing the side and bottom covers provides easy access for maintaining inner components such as circuit boards.

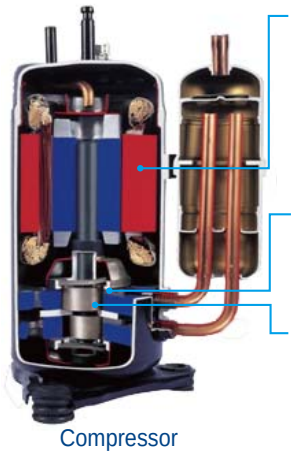
New piping connection design



Advanced Technologies

Full DC inverter technology

At the heart of our system is a highly intelligent inverter driven compressor. This advanced technology enables the output of the outdoor unit to be modulated by the cooling or heating demands of the zone that it controls. This advanced system ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to the limiting the impact on the environment.



Compressor
(Twin Rotary) structure

Highly Efficient DC Motor:

- Creative motor core design
- High density neodymium magnet
- Concentrated type stator
-Wider operating frequency range

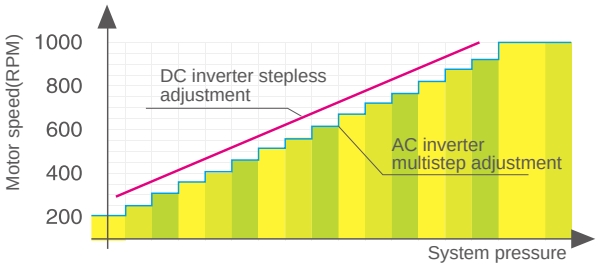
Better balance and Extremely Low Vibration:

- Twin eccentric cams
- 2 balance weights

Highly Stable Moving Parts:

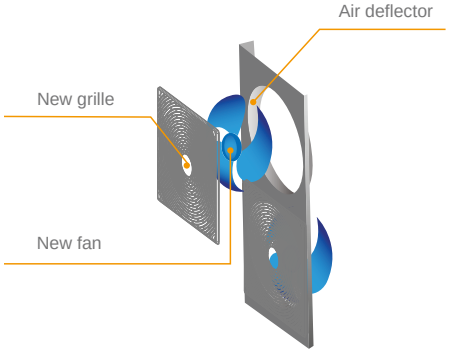
- Optimal material matching rollers and vanes
-Optimize compressor drive technology
- Highly robust bearings
-Compact structure

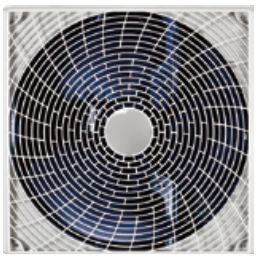
High efficiency DC fan motor saved power up to 50%.



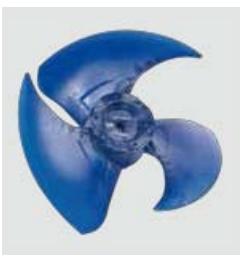
Noise reducing design

Optimally designed fan shape and air discharge grille increases air volume and reduces running noise





Newly Designed Fan Guard



Powerful Large Propeller

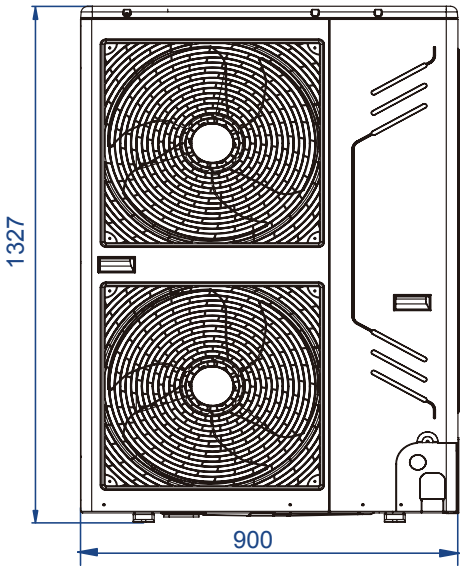
Outdoor Unit Specifications

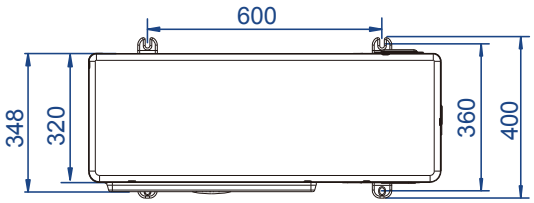
Model			38VR004H112010	38VR005H112010	38VR006H112010	38VR004H119010	38VR005H119010	38VR006H119010
Power supply		V/Ph/Hz	220-240/1/50			380-415/3/50		
Cooling	Capacity	kW	12.0	14.0	15.5	12.0	14.0	15.5
	Input	kW	4.5	5.0	6.5	4.5	5.0	5.6
	EER	kW/kW	2.67	2.80	2.38	2.67	2.80	2.77
Heating	Capacity	kW	13.2	15.4	17.0	13.2	15.4	17.0
	Input	kW	3.8	4.8	6.0	3.85	4.4	5.4
	COP	kW/kW	3.47	3.21	2.83	3.43	3.5	3.15
Connectable indoor unit	Total capacity	%	45-130	45-130	45-130	45-130	45-130	45-130
	Max. quantity		6	6	7	6	6	7
Sound pressure level		dB(A)	57	57	57	57	57	57
Pipe connections	Liquid pipe	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	Gas pipe	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ19.1	Φ19.1
Fan motor	Type		DC	DC	DC	DC	DC	DC
	Quantity		2	2	2	2	2	2
	Air flow rate	m^3/h	6.000	6.000	6.000	6.000	6.000	6.000
Rotary compressor	Quantity		1	1	1	1	1	1
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Factory charging	kg	3.3	3.9	3.9	3.3	3.9	3.9
Net dimension (W×H×D)		mm	900×1.327×320			900×1.327×320		
Packing size (W×H×D)		mm	1.030×1.456×435			1.030×1.456×435		
Net weight		kg	95	95	100	95	95	102
Gross weight		kg	106	106	111	106	106	113
Operating temperature range	Cooling	°C	-15~48					
	Heating	°C	-15~27					

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 5m, level difference is 0m.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1m above the floor.
2010: When the * is omit, the model stands for 220-240V/1ph/50Hz unit.
9010: When the * is R, the model stands for 380-415V/3ph/50Hz unit.

Outdoor Unit Dimensions

12/14/16 kW





XPower Full DC Inverter
Mini VRF / Side Discharge

XPower Full DC Inverter Mini VRF / Side Discharge it is designed to optimize performance and better match varieties of application requirement. It is focused on providing better air solutions for the small and middle-sized buildings.

Features

Wide Application Range

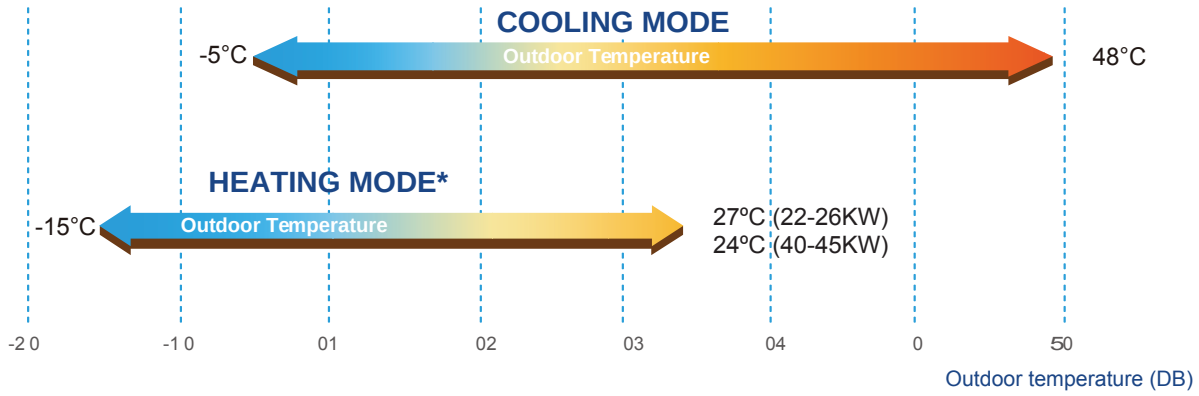
Wide range of outdoor units

The capacity range of outdoor unit is from 22.4kW to 45kW with four models side air-discharge type. Maximum 15 indoor units with capacity up to 130% of total outdoor units can be connected in one refrigeration system.

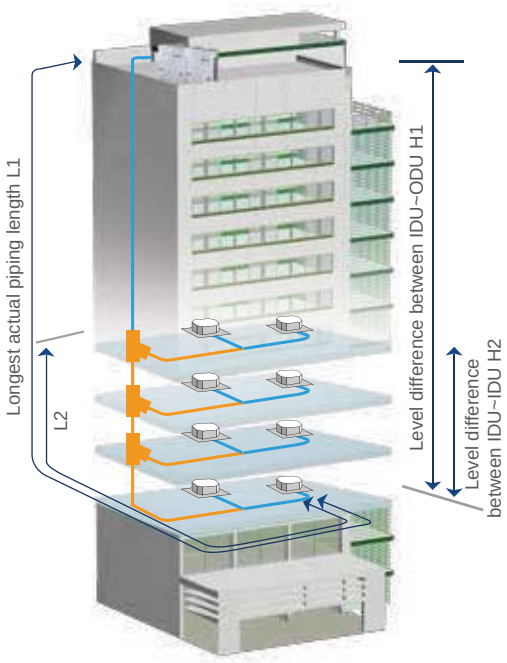
20/22.4/26kW	40/45kW

Wide operation range

It operates stably at extreme temperatures ranging from -15°C to 48°C.



Long piping length



			Permitted value	
			20-26kW	40-45kW
Piping length	Total piping length (Actual)		120	250
	Longest piping	Actual length	60	100
		Equivalent length	70	120
	Equivalent piping length from the farthest IDU to the first indoor branch joint		20	40
Level difference	Level difference between IDU~ODU	Outdoor unit up	30	30
		Outdoor unit down	20	20
	Level difference between IDU~IDU		8	8

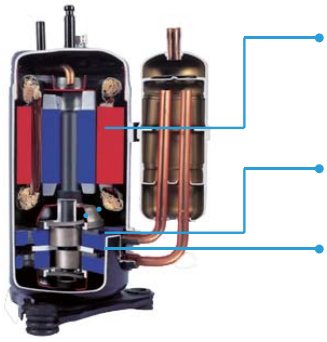
*1: Total pipe length is equal to two times pipe length plus pipe length.
*2: When the piping length from the farthest IDU to the first indoor branch joint is more than 40m, it needs to meet specific conditions according to the installation part of the technical manual to achieve 90m.

High Efficiency

High efficiency DC inverter compressor

Side air-discharge type adopts high efficiency DC twin rotary compressor.

High efficiency DC inverter twin rotary compressor (22 - 45kW)



Highly Efficient DC Motor:
- Creative motor core design
- High density neodymium magnet
- Concentrated type stator
-Wider operating frequency range

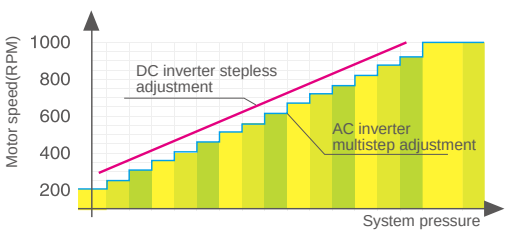
Better balance and Extremely Low Vibration:
- Twin eccentric cams
- 2 balance weights

Highly Stable Moving Parts:
- Optimal material matching rollers and vanes
-Optimize compressor drive technology
- Highly robust bearings
-Compact structure

High efficiency DC fan motor

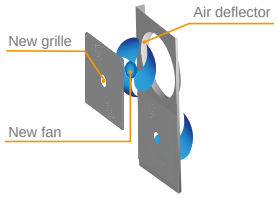
According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance.

DC motor



Optimized fan shape and fan grille

Optimized fan blade shape with new air outlet grille enhanced air flow volume which greatly improves fan performance and decreases noise.

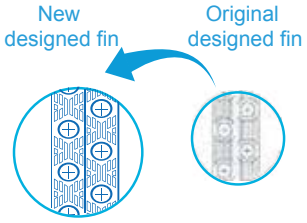


Side air discharge type

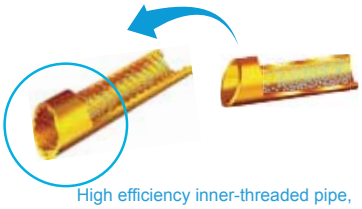
Top air discharge type

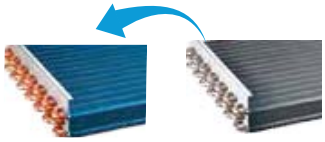
High performance heat exchanger

- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.



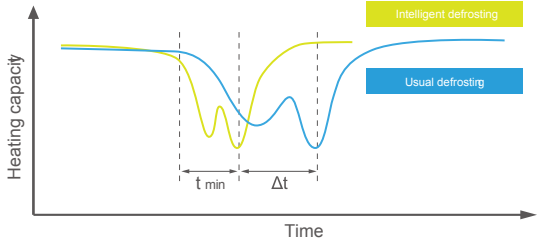
Reduce air resistance


High efficiency inner-threaded pipe, enhance heat transfer.


Hydrophilic film fins + inner-threaded pipes

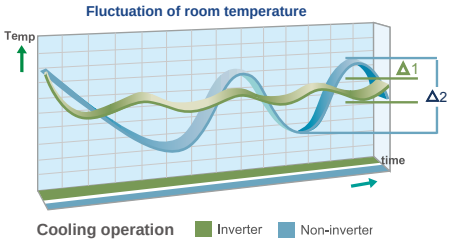
Intelligent defrosting technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable.
Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.



Quick warm-up & cool-down design and less temperature fluctuation

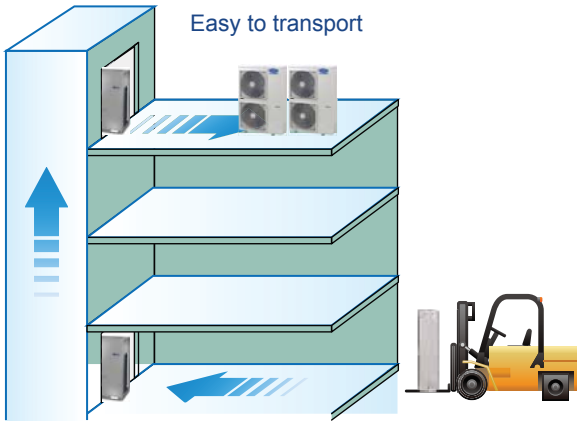
By utilizing the benefits of the inverter compressor, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution.
Less temperature fluctuation will create a better living environment.



Easier Installation and Service

Easy Installation

Easy installation: No special area is required for outdoor units.
Easy transportaion: All outdoor units can be transported by elevator, which greatly simplifies installation and reduces time and labor.
The Mini VRF indoor and outdoor units are almost as easy to install as residential air conditioning systems, making them ideal for small offices and shops.

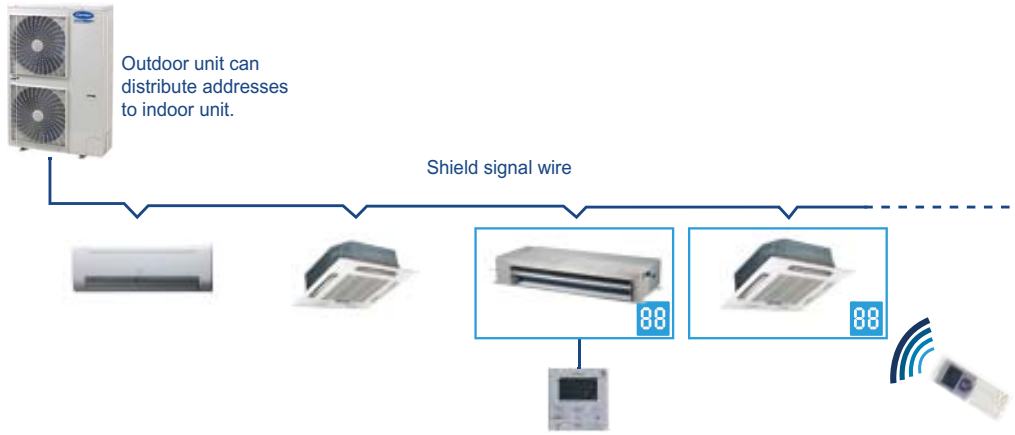


Space saving design

The Mini VRF units are slimmer and more compact, resulting in significant savings in installation space.
In some large residential and light commercial areas, such as villas, restaurants, usually it need more than one indoor unit, which in turn requires multiple outdoor units.
Mini VRF system removes this problem, and retains buildings' original aesthetics.

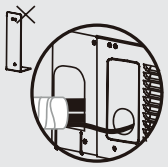
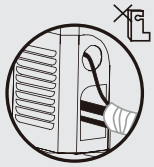
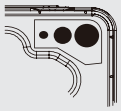
Auto addressing

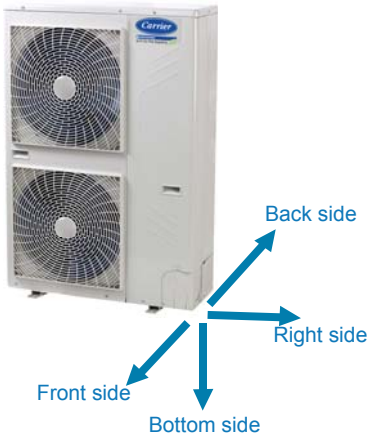
Addresses of indoor units can be set automatically by outdoor units.
Wireless controller can inquire and modify every indoor units address.



Easy piping connection

The side out discharge type offering four-directions
to connect pipes and wirings for meet a variety
installation request.

Front side	Right side	Back side	Bottom side
			



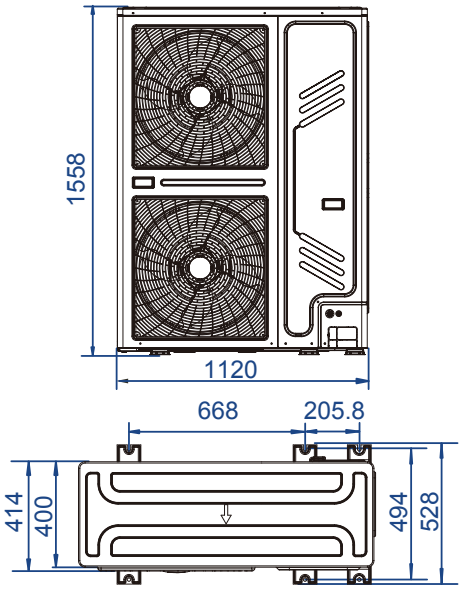
Outdoor Unit Specifications

Model			38VR008H11901S	38VR010H11901S	38VR014H11901S	38VR016H11901S
Power supply		V/Ph/Hz	380-415/3/50			
Cooling	Capacity	kW	22,4	26,0	40,0	45,0
	Power input	kW	7,2	8,4	11,9	13,6
	EER	kW/kW	3,11	3,09	3,35	3,32
Heating	Capacity	kW	24,5	28,5	45,0	50,0
	Power input	kW	6,7	7,9	11,1	12,7
	COP	kW/kW	3,66	3,61	4,05	3,93
Connectable indoor unit	Total capacity	%	50-130	50-130	50-130	50-130
	Max. quantity		11	12	14	15
Sound pressure level		dB(A)	59	60	62	62
Pipe connections	Liquid pipe	mm	Φ9,53	Φ9,53	Φ12,7	Φ12,7
	Gas pipe	mm	Φ19,1	Φ22,2	Φ22,2	Φ25,4
Fan motor	Type		DC		DC+AC	
	Quantity		2		2	
	Air flow rate	m^3/h	10.494	10.494	16.575	16.575
Rotary compressor	Quantity		1	1	2	2
Refrigerant	Type		R410A	R410A	R410A	R410A
	Factory charging	kg	6,2	6,2	9	12
Net dimension (W×H×D)		mm	1.120×1.558×400		1360×1650×540	1460×1650×540
Packing size (W×H×D)		mm	1.270×1.720×480		1450×1785×560	1550×1785×560
Net weight		kg	146,5	147	240	275
Gross weight		kg	162,5	163	260	290
Operating temperature range	Cooling	°C	-15~48		-5~48	
	Heating	°C	-15~27		-15~24	

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.
Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.
Piping length: Interconnecting piping length is 7,5m, level difference is 0m.
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1,3m above the floor.

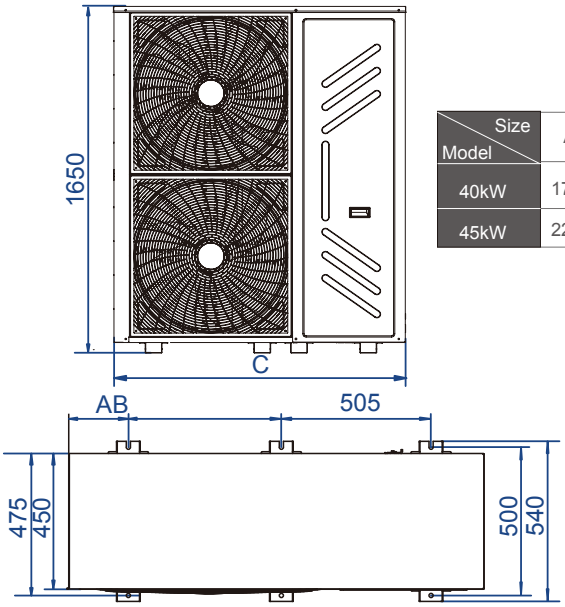
Outdoor Unit Dimensions

20/22.4/26kW



B

40/45kW



Size / Model	AB		C
40kW	175	505	1360
45kW	225	555	1460

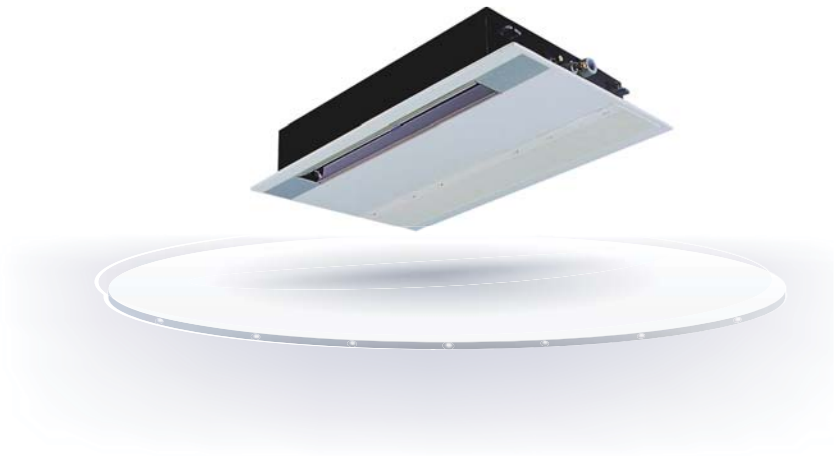
Indoor Units

Carrier

United Technologies

turn to the experts

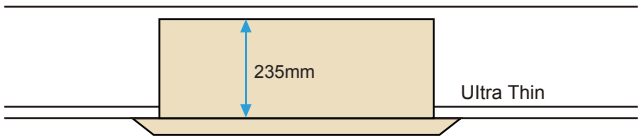
One-way Cassette



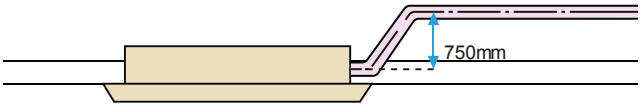
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- LED Display
- Built-in Drain Pump

Only 153mm thickness

Compact design,ultra slim body with a minimum thickness of 153mm for model 18-36,especially suitable for narrow ceiling ,such as in lobbies and small meeting rooms.

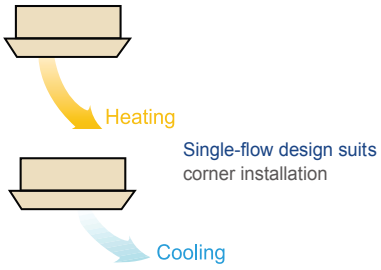


Standard built-in drain pump with 750mm pump head.



Auto swing

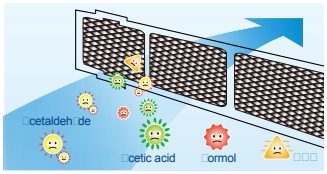
Auto swing mechanism guarantees even airflow distribution and a better room temperature balance.



Fresh air, improved air quality

Reserved fresh air intake port for high quality air creates a comfortable and healthy environment.

Special enzyme sterilization and filtering technologies filter bacteria, smog, and pollen. Provide a clean,healthy and natural air supply.



Model			40VZ009H11200010	40VZ012H11200010	40VZ018H11200010	40VZ024H11200010
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz			
Cooling	Capacity	kW	2,8	3,6	4,5	5,6
	Input	W	53	53	86	86
	Rated current	A	0,3	0,3	0,4	0,41
Heating	Capacity	kW	3,2	4,0	5,0	6,3
	Input	W	53	53	86	86
	Rated current	A	0,3	0,3	0,42	0,42
Indoor fan motor	Type		Centrifugal fan	Centrifugal fan	Centrifugal fan	Centrifugal fan
	Input	W	44/42/40	44/42/40	82/80/73	82/80/73
	Capacitor	μF	1,2/450v	1,2/450v	2,5/450v	2,5/450v
	Speed (hi/mid/lo)	r/min	970/900/820		1180/1120/990	
Indoor coil	Number of rows		3	3	3	3
	Tube pitch(a)x row pitch(b)	mm	25,4x22	25,4x22	25,4X14,4	25,4X14,4
	Fin spacing	mm	1,8	1,8	1,6	1,6
	Fin type		Hydrophilic aluminum			
	Tube outside dia, and type	mm	Φ9,52 / Inner groove tube	Φ9,52 / Inner groove tube	Φ7,94 / Inner groove tube	Φ7,94 / Inner groove tube
	Coil length x height x width	mm	600x208x66		1040X200X43,2	
	Number of circuits		2	2	6	6
Indoor air flow (H/M/L)		m^3/h	500/450/410		894/800/750	919/850/760
Indoor noise level (Hi/Mid/Lo)		dB(A)	36/34/30		41/38/35	41/38/35
Indoor unit	Dimension (W×H×D)	mm	850×235×400		1200×198×655	
	Packing (W×H×D)	mm	1080X320X460		1380X265X775	
	Net/Gross weight	kg	23/27	23/27	31/38	31/38
Panel	Dimension (W×H×D)	mm	1050x18x470		1420×10×755	
	Packing (W×H×D)	mm	1100x40x520		1470×50×805	
	Net/Gross weight	Kg	4/6	4/6	9/11	9/11
Refrigerant type			R410A			
Throttle		Type	Electrical expand valve			
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ9,52/ Φ15,9
Connecting wiring	Power wiring	mm^2	2	2	2	2
	Signal wiring	mm^2	0,75	0,75	0,75	0,75
Drainage water pipe dia,		mm	ODΦ16			
Controller			Wireless WL-12-CM			
Operation temp		^0C	17-30	17-30	17-30	17-30

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB,19°CWB,outdoor temperature:35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB,outdoor temperature: 7°CDB, 6°CWB,equivalent ref. Piping: 8m(horizontal)
3. Sound level is measured at 1,4m below the unit.

Two-way Cassette

- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- LED Display
- Built-in Drain Pump

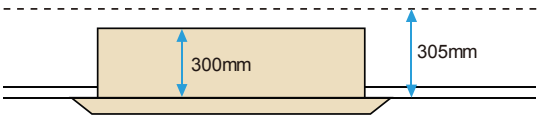
Quiet operation

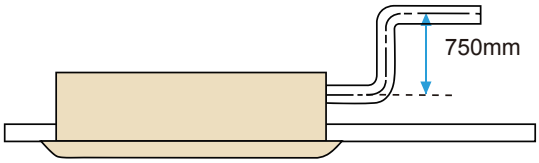
Optimized airflow duct with low resistance greatly reduces noise, minimum down to 24dB(A).

Stylish design and slim body

Thanks to the stylish appearance and slim body, the unit suits any room's decor and ambience. At only 300mm high, the unit requires only a small suspended ceiling space. Installation has no height limitations, which makes overall design features much more flexible.

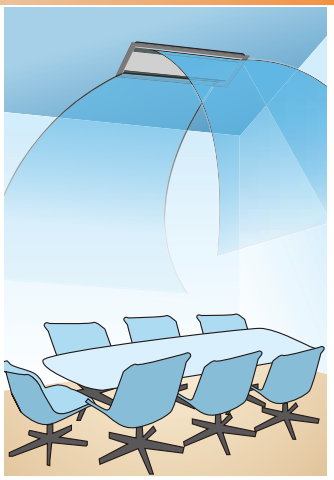
Standard built-in drain pump with 750mm pump head (higher pump head can be customized). Flat-type suction grille design greatly simplifies maintenance work.





High airflow

High airflow for high ceiling application guarantees comfort in large space. It makes every person in the room get even distribution of airflow and temperature.



Model			40VT006H10200010	40VT009H10200010	40VT012H10200010	40VT018H10200010	40VT024H10200010	40VT028H10200010
Power supply		V-Ph-Hz	220-240V-1ph-50Hz					
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6	7,1
	Input	W	57	57	60	92	108	154
	Rated current	A	0,4	0,5	0,5	0,6	0,6	0,8
Heating	Capacity	kW	2,6	3,2	4,0	5,0	6,3	8,0
	Input	W	57	57	60	92	108	154
	Rated current	A	0,4	0,5	0,5	0,6	0,6	0.8
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	60	60	67	106	128	162
	Capacitor	uF	2,0	2,0	2,5	2,0	3,5	3,5
	Speed (hi/mid/lo)	r/min	670/550/450	670/550/450	730/590/470	801/645/542	910/755/642	1159/1032/795
Indoor coil	Number of rows		1	1	1	2	2	2
	Tubepitch(a)x row pitch(b)	mm	21*3,37	21*3,37	21*3,37	21*3,37	21*3,37	21*3,37
	Fin spacing	mm	1,5	1,5	1,5	1,5	1,5	1,5
	Fin type		Hydrophilic Aluminum					
	Tube outside dia. and type	mm	Φ7, Inner-groove Tube					
	Number of circuits		4	4	4	6	6	6
Indoor air flow (H/M/L)		m^3/h	654/530/410	654/530/410	725/591/458	850/670/550	980/800/670	1200/1000/770
Indoor noise level (Hi/Mid/Lo)		dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30	44/40/34
Indoor unit	Dimension (WxHxD)	mm	1172×300×592	1172×300×592	1172×300×592	1172×300×592	1172×300×592	1172×300×592
	Packing / (WxHxD)	mm	1355×400×675	1355×400×675	1355×400×675	1355×400×675	1355×400×675	1355×400×675
	Net/Gross weight	kg	34/42,5	34/42,5	34/42,5	36,5/45	36,5/45	36,5/45
Panel	Dimension (WxHxD)	mm	1430×90×680	1430×90×680	1430×90×680	1430×90×680	1430×90×680	1430×90×680
	Packing / (WxHxD)	mm	1525×130×765	1525×130×765	1525×130×765	1525×130×765	1525×130×765	1525×130×765
	Net/Gross weight	kg	10,5/15	10,5/15	10,5/15	10,5/15	10,5/15	10,5/15
Throttle			Electric expansive valve					
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant	Liquid side/ Gas side	mm	Φ6,4/Φ12,7	Φ6,4/Φ12,7	Φ6,4/Φ12,7	Φ6,4/Φ12,7	Φ9,52/Φ15,9	Φ9,52/Φ15,9
Connecting wiring	Power wiring	$Nb×mm^2$	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)
	Signal wiring	$Nb×mm^2$	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe dia.		mm	ID Φ25, OU Φ32	ID Φ25, OU Φ32	ID Φ25, OU Φ32	ID Φ25, OU Φ32	ID Φ25, OU Φ32	ID Φ25, OU Φ32
Controller			Wireless WL-12-CM					
Operation temp		°C	Cooling:17~32; Heating:10~28					

Notes:

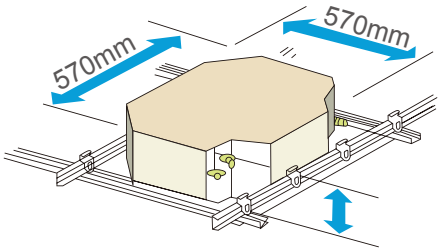
1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB,19°CWB,outdoor temperature:35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB,outdoor temperature: 7°CDB, 6°CWB,equivalent ref. Piping: 8m(horizontal)
3. Sound level is measured at 1,4m below the unit.

Compact Four-way Cassette

- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- LED Display
- Super High Air Flow

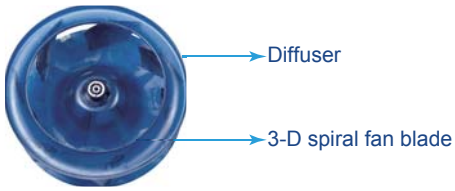
Compact design, easy installation and maintenance

Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling. Due to the compact body and light weight, all models can be installed without a hoist.



Quiet operation, gentle air supply

Streamline plate ensures quiet operation
Advanced 3-D spiral fan design reduces air resistance and operation noise.



Four-way uniform airflow

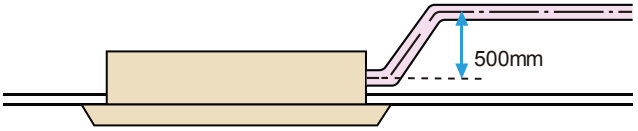
Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.

360°Airflow outlet

360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature.

Lift pump

Drain pump with a 500mm pump head is fitted as standard; maximum 600mm pump head is available.



Model			40VX006H11200010	40VX009H11200010	40VX012H11200010	40VX018H11200010
Power supply		V-ph-Hz	220~240-1-50			
Cooling	Capacity	kW	2,2	2,8	3,6	4,5
	Input	W	51	52	58	58
	Rated current	A	0,175	0,175	0,21	0,21
Heating	Capacity	kW	2,4	3,2	4,0	5,0
	Input	W	43	44	50	51
	Rated current	A	0,175	0,175	0,21	0,21
Indoor fan motor	Type		AC Motor	AC Motor	AC MOTOR	AC MOTOR
	Input	W	34,3	34,3	47,1	47,1
	Capacitor	uF	1,2uF/450V	1,2uF/450V	1,5uF/450V	1,5uF/450V
	Speed(hi/mi/lo)	r/min	658/586/485	658/586/485	780/670/540	780/670/540
Indoor coil	Number of rows		1	1	2	2
	Tube pitch(a)x row pitch(b)	Mm	21*13,37	21*13,37	21*13,37	21*13,37
	Fin spacing	Mm	1,3	1,3	1,3	1,3
	Fin type (code)		Hydrophilic aluminium			
	Tube outside dia. and type	Mm	Φ7	Φ7	Φ7	Φ7
			Inner groove tube			
	Coil length x height x width	Mm	1310×210×13,37	1310×210×13,37	1310×210×26,74	1310×210×26,74
	Number of circuits		2	2	4	4
Indoor air flow (Hi/Me/Lo)		m^3/h	522/414/313	522/414/313	610/521/409	610/521/409
Sound level (sound pressure)		dB(A)	35,8/33,4/23,4	35,8/33,4/23,4	41,5/35,6/28,8	41,5/35,6/28,8
Indoor unit	Dimension (W x H x D)	Mm	630*265*575	630*265*575	630*265*575	630*265*575
	Packing (W x H x D)	Mm	675*285*675	675*285*675	675*285*675	675*285*675
	Net/Gross weight	Kg	17,5/22	17,5/22	19/23,5	19/23,5
Panel	Dimension (W x H x D)	Mm	647*50*647	647*50*647	647*50*647	647*50*647
	Packing (W x H x D)	Mm	705*113*705	705*113*705	705*113*705	705*113*705
	Net/Gross weight	Kg	3/5	3/5	3/5	3/5
Refrigerant Type			R410A			
Throttle			Electric expansive valve			
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid side/ Gas side	Mm	6,35/12,7	6,35/12,7	6,35/12,7	6,35/12,7
Connection wiring	Power wiring	mm^2	3*2,0	3*2,0	3*2,0	3*2,0
	Signal wiring	mm^2	3*0,75 (3-core shielded wire)	3*0,75 (3-core shielded wire)	3*0,75 (3-core shielded wire)	3*0,75 (3-core shielded wire)
Drainage water pipe dia.		Mm	ID Φ20 ODΦ25	ID Φ20 ODΦ25	ID Φ20 ODΦ25	ID Φ20 ODΦ25
Controller			Wireless WL-12-CM			
Operation temp		°C	17~32			

Notes:

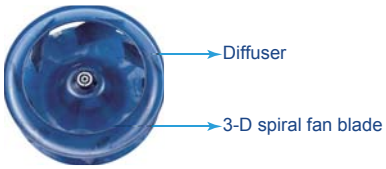
1. Nominal cooling capacities are based on the following conditions: return air temperature : 27°CDB,19°CWB,outdoor temperature:35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB,outdoor temperature: 7°CDB, 6°CWB,equivalent ref. Piping: 8m(horizontal)
3. Sound level is measured at 1,4m below the unit.

Four-way Cassette

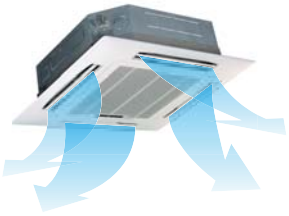
- Auto Restart
- Fresh Air
- Auto Addressing
- Cleanable Panel
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- LED Display
- Super High Air Flow

Quiet operation, gentle air supply

- Streamline plate ensures quiet operation.
- Advanced 3-D spiral fan design reduces air resistance and operation noise.



Four-stage fan speed



Easy troubleshooting

By adding digital tube on the display board, Error Codes can be displayed directly for troubleshooting.

Four-way uniform airflow

Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.

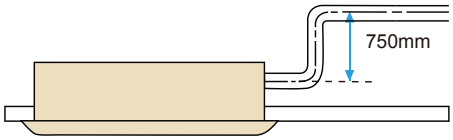
360°Airflow outlet

360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature.

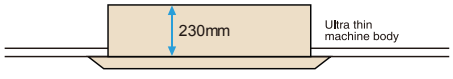
Reserved multi-function ports

High lift pump

Drain pump can take condenser water up to 750mm, which simplifies installation of the drain piping system.



Ultra-thin machine body (minimum height 230mm) simplifies installation and maintenance.



Model			40VK0 09H11200010	40VK0 12H11200010	40VK0 18H11200010	40VK0 24H11200010	40VK0 28H11200010	40VK0 32H11200010	40VK0 36H11200010	40VK0 40H11200010	40VK0 48H11200010	40VK0 56H11200010
Power supply		V-Ph-Hz	220-240V, 1Ph, 50Hz									
Cooling	Capacity	kW	2,8	3,6	4,5	5,6	7,1	8,0	9,0	10,0	11,2	14,0
	Input	W	80	80	90	75	82	97	160	160	160	170
	Rated current	A	0,4	0,4	0,4	0,4	0,5	0,5	0,7	0,7	0,7	0,8
Heating	Capacity	kW	3,2	4,0	5,0	6,3	8,0	9,0	10,0	11,0	12,5	15,0
	Input	W	80	80	90	75	82	97	160	160	160	170
	Rated current	A	0,4	0,4	0,4	0,4	0,5	0,5	0,7	0,7	0,7	0,8
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	98/85/75/70	98/85/75/70	98/85/75/70	98/85/75/70	120/110/100/90	120/110/100/90	165/143/114/93	165/143/114/93	165/143/114/93	204/175/140/120
	Capacitor	uF	2,5	2,5	3,0	3,0	3,0	3,0	3,5	3,5	3,5	4,0
	Speed (hi/mid/lo)	r/min	(782)/600/509/422	(782)/600/509/422	(808)/652/547/467	(808)/652/547/467	(877)/755/627/490	(800)/777/662/525	770/640/550	770/640/550	770/640/550	820/750/620
Indoor coil	Number of rows		1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0
	Tube pitch(a)x row pitch(b)	mm	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37	21x13,37
	Fin spacing	mm	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
	Fin type		Hydrophilic Aluminum									
	Tube outside dia. and type	mm	Φ7,Innergroove Tube									
	Coil length x height x width	mm	1930x168x13,37	1930x168x13,37	1961x168x26,74	1961x168x26,74	1961x168x26,74	1961x168x26,74	1955x252x26,74	1955x252x26,74	1955x252x26,74	1955x252x26,74
	Number of circuits		4	4	8	8	8	8	8	8	8	12
Indoor air flow (H/M/L)		m^3/h	847/766/640	847/766/640	864/755/658	864/755/658	1157/955/749	1236/973/729	1540/1300/1120	1540/1300/1120	1540/1300/1120	1800/1500/1280
Indoor noise level (Hi/Mid/Lo)		dB(A)	42/38/35	42/38/35	42/38/35	42/38/35	45/42/39	45/42/39	48/45/43	48/45/43	48/45/43	50/47/44
Indoor unit	Dimension (WxHxD)	mm	840x230x840	840x230x840	840x230x840	840x230x840	840x230x840	840x230x840	840x300x840	840x300x840	840x300x840	840x300x840
	Packing (WxHxD)	mm	955X247X955	955X247X955	955X247X955	955X247X955	955X247X955	955X247X955	955X317X955	955X317X955	955X317X955	955X317X955
	Net/Gross weight	kg	24/28	24/28	26/30	26/30	26/30	26/30	32/37	32/37	32/37	32/37
Panel	Dimension (WxHxD)	mm	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950
	Packing (WxHxD)	mm	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000	1000x60x1000
	Net/Gross weight	kg	6/8	6/8	6/8	6/8	6/8	6/8	6/8	6/8	6/8	6/8
Refrigerant type			R410A									
Throttle			Electric expansive valve									
Design pressure		MPa	4,2/2,0	4,2/2,0	4,2/2,0	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refriger-ant piping	Liquid side/ Gas side	mm	Φ6,4/ Φ12,7	Φ6,4/ Φ12,7	Φ6,4/ Φ12,7	Φ9,5/ Φ15,9	Φ9,52/ Φ15,9	Φ9,52/ Φ15,9	Φ9,52/ Φ15,9	Φ9,52/ Φ15,9	Φ9,52/ Φ15,9	Φ9,52/ Φ15,9
Connect-ing wiring	Power wiring	$Nb \times mm^2$	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)	3×2,5(L≤20m) 3×3,5(L≤50m)
	Signal wiring	$Nb \times mm^2$	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe dia.		mm	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32	IDΦ28,5 ODΦ32
Controller			Wireless WL-12-CM									
Operation temp		°C	17~30									

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature. : 27°CDB,19°CWB,outdoor temperature.:35°CDB, equivalent ref. Piping: 8m(horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature.: 20°CDB,outdoor temperature.: 7°CDB, 6°CWB,equivalent ref. Piping: 8m(horizontal)
3. Sound level is measured at 1,4m below the unit.

Low Static Pressure Duct

- Auto Restart
- Anti-Cold Air Function
- Auto Addressing
- Wireless remote controller
- Follow Me
- Super High Air Flow

Low sound level

Utilizes the centrifugal type blower, provides a minimum noise level of 24dB (A), an excellent choice for hotels and other sound-sensitive places.

V shape evaporator-- good for heat exchanging

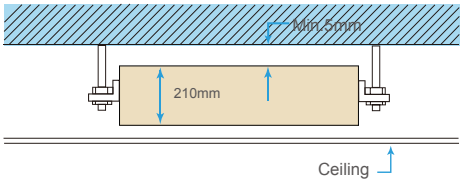
V shape evaporator design enhances heat exchanging efficiency about 22%.

Convenient for installation and maintenance

The EXV is fixed inside the indoor unit.

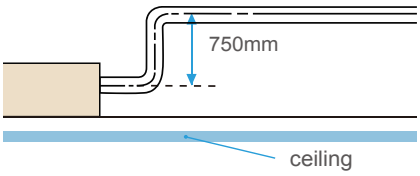
Compact design

Uniform 210mm in height, compact design for easy locate where space ceiling is limited,
The whole body adopts fireproof plastic material, the minimum weight is 14kg.



Options

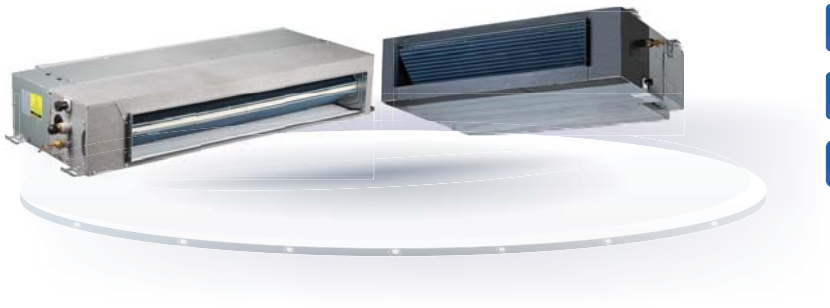
A drain pump with 750mm pumphead is an optional accessory.



Model			42VD006H112002011	42VD009H112002011	42VD012H112002011	42VD018H112002011	42VD024H112002011	42VD028H112002011
Power supply		V-Hz-Ph	220-240V-50Hz-1Ph					
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6	7,1
	Input	W	59	59	65	105	105	130
	Rated current	A	0,31	0,31	0,36	0,36	0,36	0,5
Heating	Capacity	kW	2,6	3,2	4,0	5,0	6,3	8,0
	Input	W	59	59	65	105	105	130
	Rated current	A	0,31	0,31	0,36	0,36	0,36	0,5
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	68	68	70	85	85	110
	Capacitor	μF	1,5μF/450V	1,5μF/450V	2,0μF/450V	3,5μF/450V	3,5μF/450V	3,5μF/450V
	Speed (sh/h/m/l)	r/min	1060/880/740/660	1060/880/740/660	1100/960/830/730	1030/930/70/680	1030/930/70/680	1030/780/730/640
Indoor coil	Number of rows		2	2	2	2	2	2
	Tube pitch(a)x row pitch(b)	mm	21×13,37	21×13,37	21×13,37	21×13,37	21×13,37	21×13,37
	Fin spacing	mm	1,5	1,5	1,5	1,3	1,3	1,5
	Fin type		Hydrophilic aluminum					
	Tube outside diameter and		Φ7	Φ7	Φ7	Φ7	Φ7	Φ7
	type		Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube
	Coil length x height x width	mm	515×147×26,74	515×147×26,74	515×147×26,74	734×147×26,74	734×147×26,74	952×147×26,74
	Number of circuits		3	3	3	6	6	6
Indoor air flow (SH/H/M/L)		m^3/h	606(30pa)/578/512/409	606(30pa)/578/512/409	646(30pa)/617/551/441	803(30pa)/824/690/609	803(30pa)/824/690/609	1207(30pa)/1060/970/811
Indoor external static pressure (H)		Pa	10(10-30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)
Indoor noise level (H/M/L)		dB(A)	35/27/24	35/27/24	35/27/24	39/32/29	39/32/29	41/33/30
Indoor unit	Dimension (W×H×D)	mm	740×210×470	740×210×470	740×210×470	960×210×470	960×210×470	1180×210×470
	Packing (W×H×D)	mm	910×230×510	910×230×510	910×230×510	1130×230×510	1130×230×510	1350×230×510
	Net/Gross weight	kg	14/17,5	14/17,5	14/17,5	17,5/22	17,5/22	21/26,5
Refrigerant type			R410A					
		Type	Electrical expand valve					
Design pressure(H/L)		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ9,53/ Φ15,9	Φ9,53/ Φ15,9
Connecting wiring	Power wiring	mm^2	3x2,5	3x2,5	3x2,5	3x2,5	3x2,5	3x2,5
	Signal wiring	mm^2	3x0,75	3x0,75	3x0,75	3x0,75	3x0,75	3x0,75
Drainage water pipe diameter			ODΦ25	ODΦ25	ODΦ25	ODΦ25	ODΦ25	ODΦ25
Controller			Wireless WL-12-CM					

Notes:
1. Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CD (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and (horizontal)
3.Sound level is measured at 1,4m below the air outlet.
* External static pressure is based on high speed indoor air flow.

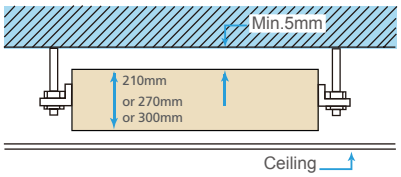
Concealed Duct Unit (A5 Type)



- Auto Restart
- Fresh Air
- Follow Me
- Anti-Cold Air Function
- Built-in Drain Pump
- Wired Controller
- Auto Addressing
- Super High Air Flow
- Connectable To Duct

Compact size

Only 210mm (15~71 models) or 270mm (80 to 112 models) or 300mm (140 model) in height.



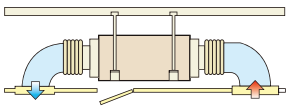
External static pressure

Four speed fan motor (Super high speed is optional)
Change the wiring connection from 'SH' to 'H' to change the ESP.

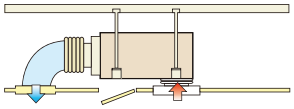
Convenient installation

The EXV is fixed inside of the indoor unit.
Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
Suction chamber is included as standard equipment.
Fresh air hole, air inlet/outlet flange are standard for easy duct connection.
A rear air inlet is standard and an inlet at the bottom is optional. Both use the same connectable duct.

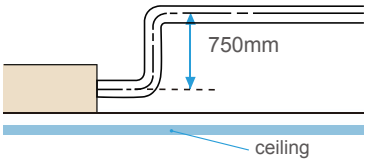
Air intake from back



Air intake from below



drain pump as standard



Flexible control and easy maintenance

Standard wireless remote controller.
The electrical control box can be removed 1m away from the unit for easy maintenance access.
Customers need to request this service in advance for it is done at Midea CAC factory.
Standard functional ports are included such as Remote On/Off Dry contact switch and Alarm signal output (220V).

Model			42VD006H112013011	42VD009H112013011	42VD012H112013011	42VD018H112013011	42VD024H112013011	42VD028H112013011
Power supply		V-Hz-Ph	220-240V-50Hz-1Ph					
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6	7,1
	Input	W	68	68	72	80	80	105
	Rated current	A	0,31	0,31	0,33	0,36	0,36	0,47
Heating	Capacity	kW	2,6	3,2	4,0	5,0	6,3	8,0
	Input	W	65	65	69	80	80	105
	Rated current	A	0,31	0,31	0,33	0,36	0,36	0,47
Indoor fan motor	Type		AC Motor	AC Motor	AC Motor	AC Motor	AC Motor	AC Motor
	Input	W	50,4	50,4	51,2	80	80	108
	Capacitor	μF	1,5μF/450V	1,5μF/450V	2,0μF/450V	3,5μF/450V	3,5μF/450V	3,5μF/450V
	Speed (SH/H/M/L)	r/min	1200/1000/865/760	1200/1000/865/760	1270/1130/980/870	1135/1040/860/770	1135/1040/860/770	1220/955/875/745
Indoor coil	Number of rows		2	2	2	2	2	2
	Tube pitch(a) × row pitch(b)	mm	21×13,37	21×13,37	21×13,37	21×13,37	21×13,37	21×13,37
	Fin spacing	mm	1,5	1,5	1,5	1,3	1,3	1,3
	Fin type		Hydrophilic aluminum					
	Tube outside diameter / type	mm	Φ7 Inner groove tube	Φ7 Inner groove tube	Φ7 Inner groove tube	Φ7 Inner groove tube	Φ7 Inner groove tube	Φ7 Inner groove tube
	Length× height× width	mm	515×147×26,74	515×147×26,74	515×147×26,74	734×147×26,74	515×147×26,74	952×147×26,74
	Number of circuits		3	4	4	6	6	6
Indoor air flow (SH/H/M/L)		m^3/h	588(30pa)/538/456/375	588(30pa)/538/456/375	614(30pa)/597/514/429	763(30pa)/811/684/575	763(30pa)/811/684/575	1127(30pa)/1029/934/781
Indoor external static pressure (H)		Pa	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)	10(10~30)
Indoor noise level (H/M/L)		dB(A)	36/35/32	37/35/32	38,6/37,5/33,8	39/37,9/34	39/37,9/34	41,4/39/35
Indoor unit	Dimension (W×H×D)	mm	740x210x500	740x210x500	740x210x500	960x210x500	960x210x500	1180x210x500
	Packing (W×H×D)	mm	870×285×525	870×285×525	870×285×525	1115x285x525	1115x285x525	1335x285x525
	Net/Gross weight	kg	17,5/20	17,5/20	17,5/20	22,5/26	22,5/26	28/31,5
Fresh Air intake hole diameter (round)		mm	Φ92	Φ92	Φ92	Φ92	Φ92	Φ92
Refrigerant type			R410A					
Throttle		Type	EXV	EXV	EXV	EXV	EXV	EXV
Design pressure(H/L)		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid / Gas	mm	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ6,35/ Φ12,7	Φ9,53/Φ15,9	Φ9,53/Φ15,9
Connecting wiring	Power wiring	mm^2	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)
	Signal wiring	mm^2	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe diameter		mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Controller			Wireless WL-12-CM					

Model			42VD032H112003010	42VD036H112003010	42VD040H112003010	42VD048H112003010	42VD052H112003010	42VD054H112003010
Power supply		V-ph-Hz	220~240-1-50					
Cooling	Capacity	kW	8,0	9,0	10,0	11,2	12,5	14,0
	Input	W	231	231	327	327	355	355
	Rated current	A	1,0	1,0	1,8	1,8	1,9	1,9
Heating	Capacity	kW	9	10	11	12,5	13,5	15,5
	Input	W	231	231	327	327	355	355
	Rated current	A	1	1	1,8	1,8	1,9	1,9
Indoor fan motor	Type		AC MOTOR	AC MOTOR	AC MOTOR	AC MOTOR	AC MOTOR	AC MOTOR
	Input	w	179	179	300	300	255	255
	Capacitor	uF	10UF/450V	10UF/450V	10UF/450V	10UF/450V	10UF/450V	10UF/450V
	Speed(hi/mi/lo)	r/min	(935)/810/700/620	(935)/810/700/620	(1130)/1000/870/770	(1130)/1000/870/770	(1080)/960/830/710	(1080)/960/830/710
Indoor coil	Number of rows		4	4	4	4	4	4
	Tube pitch(a)x row pitch(b)	mm	21X13,37	21X13,37	21X13,37	21X13,37	25,4X22	25,4X22
	Fin spacing	mm	1,5	1,5	1,5	1,5	1,5	1,5
	Fin type (code)		Hydrophilic aluminum					
	Tube outside dia. and type	mm	Φ7 / Inner groove tube	Φ7 / Inner groove tube	Φ7 / Inner groove tube	Φ7 / Inner groove tube	Φ9,5 / Inner groove tube	Φ9,5 / Inner groove tube
	Coil length x height x width	mm	955X53,5X336	955X53,5X336	955X53,5X336	955X53,5X336	1030X88X457,2	1030X88X457,2
	Number of circuits		5	8	8	8	8	8
Indoor air flow (/Hi/Mi/Lo)		m^3/h	(1600)/1350/1166/1031	(1600)/1350/1166/1031	(2036)/800/1565/1389	(2036)/800/1565/1389	(2138)/1900/1643/1400	(2138)/1900/1643/1400
Static pressure (Min.~Max)		Pa	20(10~50)	20(10~50)	40(10~80)	40(10~80)	40(10~100)	40(10~100)
Sound level (sound pressure)		dB(A)	45,4/39,8/37	45,4/39,8/37	48,0 /41,9/38	48,0 /41,9/38	47,7/43,2/39,0	47,7/43,2/39,0
Indoor unit	Dimension (W x H x D)	mm	1140X270X775	1140X270X775	1140X270X775	1140X270X775	1200X300X865	1200X300X865
	Packing(W x H x D)	mm	1355X350X795	1355X350X795	1355X350X795	1355X350X795	1385X375X920	1385X375X920
	Net/Gross weight	kg	38/46,5	40/48	40/48	40/48	49/58	49/58
Fresh Air Intake	Size (round)	mm	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125
Refrigerant Type			R410A					
Throttle	Type		EXV					
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid side/ Gas side	mm	Φ9,53/Φ15,9	Φ9,53/Φ15,9	Φ9,53/Φ15,9	Φ9,53/Φ15,9	Φ9,53/Φ15,9	Φ9,53/Φ15,9
Connection wiring	Power wiring	mm^2	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)
	Signal wiring	mm^2	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe diameter		mm	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32
Controller			Wireless WL-12-CM					
Operation temp		°C	17~30					

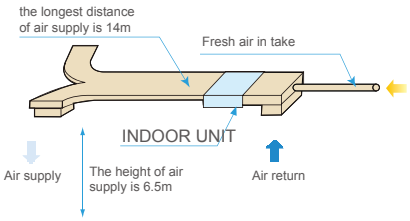
Notes:
1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured at 1,4m below the air out-let.
* External static pressure is based on high speed indoor air flow.
* Specifications are subject to change without prior notice for product improvement.

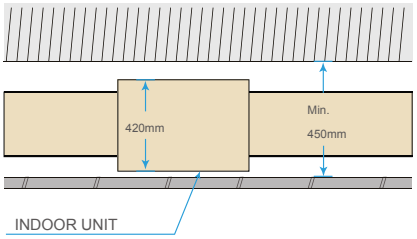
High Static Pressure Duct

- Auto Restart
- Anti-Cold Air Function
- Auto Addressing
- Connectable To Duct
- Follow Me
- Wired Controller

Flexible duct design

External static pressure can be up to 196Pa (models 71 to 160) or 280Pa (models 200 to 560).





The maximum distance for air supply is about 14m at height of 6.5m.
With a 420mm (models 71 to 160) thick body, the minimum distance required above the ceiling is 450mm.

Greater flexibility with the four-speed fan

Four speed fan motor(model 71 to 160).

Convenient installation

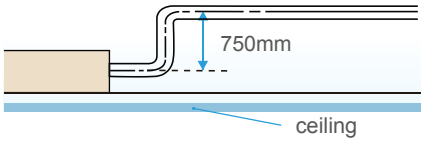
The EXV is fixed inside the indoor unit (models 70-160), requires no extra connection.
Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
Flange for air in/outlet duct connection is standard.

Flexible control and convenient for maintenance

The display board is connected to the E-box in factory, easier troubleshooting by LED display.
Easy access filters both at the rear & bottom.
Standard functional port such as remote on/off dry contact.

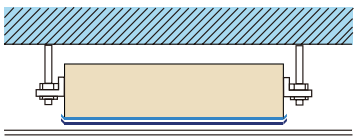
Options

Drain pump with 750mm pump head is optional (models 71 to 160)



Double-skin drainage pan

Double-skin drainage pan provide double protection for ceilings (models 71 to 160 and models 400 to 560)



Model			42VD0 28H112011010	42VD0 32H112011010	42VD0 36H112011010	42VD0 48H112011010	42VD0 54H112011010	42VD0 55H112011010	42VD0 56H112011010	42VD0 58H112011010	42VD0 60H112011010
Power supply		V-Ph-Hz	220V-1Ph-50Hz								
Cooling	Capacity	kW	7,1	8,0	9,0	11,2	14,0	16,0	20,0	25,0	28,0
	Input	W	240	240	398	512	648	873	1800	1800	1800
	Rated current	A	1,1	1,1	1,8	2,3	2,7	3,6	6,6	6,6	6,6
Heating	Capacity	kW	8,0	9,0	10,0	12,5	16,0	18,0	22,5	26,0	31,5
	Input	W	240	240	398	512	648	873	1800	1800	1800
	Rated current	A	1,1	1,1	1,8	2,3	2,7	3,6	6,6	6,6	6,6
Max. input consumption		W	269	269	437	528	660	891	1978	1978	1978
Max. current		A	1,23	1,23	1,8	2,3	2,85	4,77	8,6	8,6	8,6
Indoor fan motor	Type		Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor
	Input	W	247	247	391	490	588	798	900/820/630(×2)	900/820/630(×2)	900/820/630(×2)
	Capacitor	uF	12	12	10	15	12	15	12(×2)	12(×2)	15(×2)
	Speed(hi/mi/lo)	r/min	975/923/847	975/923/847	1282/1213/1035	1000/930/774	956/853/697	1087/953/836	1300/1100/900(×2)	1300/1100/900(×2)	1300/1100/900(×2)
Indoor coil	Number of rows		2	2	3	3	4	4	4	4	4
	Tube pitch(a)x row pitch(b)	mm	25.4×22	25.4×22	25.4×22	25.4×22	25.4×22	25.4×22	25.4×22	25.4×22	25.4×22
	Fin spacing	mm	1.5	1.5	1.6	1.6	1.6	1.6	1.8	1.8	1.8
	Fin type (code)		hydrophillia arcuate fin aluminurn foil								
	Tube outside dia. and type	mm	9.52 innergroove tube	9.52 innergroove tube	9.52 innergroove tube	9.52 innergroove tube	9.52 innergroove tube	9.52 innergroove tube	9.53 innergroove tube	9.53 innergroove tube	9.53 innergroove tube
	Coil length x height x width	mm	700x356×44	700x356×44	700x356×66	700x356×66	996x355.6×88	996x355.6×88	1125×512×88	1125×512×88	1125×512×88
	Number of circuits		3	3	7	7	7	7	20	20	20
Indoor air flow (Hi/Mi/Lo)		m^3/h	1510/1399/1236	1500/1396/1221	1936/1721/1511	2117/1950/1644	2988/2670/2229	3890/3200/2700	4268/3780/3200	4280/3820/3200	4400/3708/3200
Indoor external static pressure		Pa	40(30~ 196)	40(30~ 196)	40(30~ 196)	50(30~ 196)	50(30~ 196)	50(30~ 196)	140(50~250)	140(50~250)	160(50~250)
Indoor noise level (Sound pressure) (Hi/Mi/Lo)		dB(A)	48/46/44	48/46/44.5	52/49/47	52/49/47	53/50/48	54/52/50	59/55/52	59/55/52	59/55/52
Indoor unit	Dimension (W×H×D)	mm	952x420x690	952x420x690	952x420x690	952x420x690	1200x400x600	1200x400x600	1425×500×928	1425×500×928	1425×500×928
	Packing (W×H×D)	mm	1102x450x768	1102x450x768	1102x450x768	1102x450x768	1430x450x768	1430x450x768	1509×522×964	1509×522×964	1509×522×964
	Net/Gross weight	Kg	45/50	45/50	46.5/52.4	50.6/56	68/70	70/77.5	115/129	115/129	115/129
Refrigerant type			R410A								
Throttle type			Electric expansive valve								
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.52/Φ15.9	Φ9.53/ Φ15.9×2	Φ9.53/ Φ15.9×2	Φ9.53/ Φ15.9×2
Connection wiring	Power wiring	$Nb×mm^2$	2*2.5+1*2.0	2*2.5+1*2.0	2*2.5+1*2.0	2*2.5+1*2.0	2*2.5+1*2.0	2*2.5+1*2.0	3×2.5(L≤20m) 3×3.5(L≤50m)	3×2.5(L≤20m) 3×3.5(L≤50m)	3×2.5(L≤20m) 3×3.5(L≤50m)
	Signal wiring	$Nb×mm^2$	3*0.75	3*0.75	3*0.75	3*0.75	3*0.75	3*0.75	3×0.75	3×0.75	3×0.75
Drainage pipe diameter		mm^2	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32	IDΦ25 ODΦ32
Controller			Wireless WL-12-CM								
Operation temp		°C	Cooling:17~32; Heating:10~28								

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured at 1,4m below the air out-let.

* External static pressure is based on high speed indoor air flow.
* Specifications are subject to change without prior notice for product improvement.

Ceiling & Floor

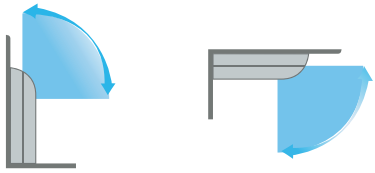
- Auto Restart
- Cleanable Panel
- Auto Addressing
- Anti-Cold Air Function
- Follow Me
- LED Display

Panel with LED display

The front panel and display panel have different colors to choose: white and brown for big panel, blue and brown for small panel. Other colors are available if required.

Convenient installation

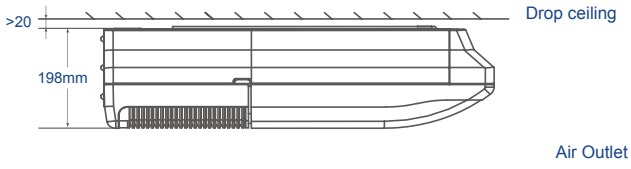
- The unit even can be easily installed at the corner of a narrow ceilings.
- It is especially useful when central installation is impossible due to features such as lights.



The unit can be installed either horizontally on the ceiling or vertically against the wall.

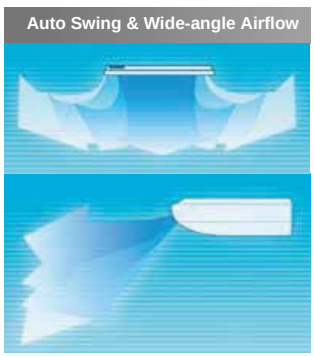
Quiet and comfortable environment

- The slim and sleek design starting at just 30kg enables quick, easy and neat installation.
- Low noise operations; minimum 36 dB(A)



Auto swing and wide angle air flow

- Auto horizontal and auto vertical swing functions for more even and comfortable airflow.
- Three air flow speeds: low, medium and high; double air guides.
- Adopt electrical expansion valve, ensuring precise flow control, lower modulation noise when EXV operating.
- Smoother airflow and less turbulence due to the multi-blade fan and the air guide design.



Model			42VF0 12H112000010	42VF0 18H112000010	42VF0 24H112000010	42VF0 28H112000010	42VF0 32H112000010	42VF0 36H112000010	42VF0 48H112000010	42VF0 54H112000010
Power supply		V-ph-Hz	220~240-1-50							
Cooling	Capacity	kW	3,6	4,5	5,6	7,1	8,0	9,0	11,2	14,0
	Input	W	34	125	125	125	143	143	182	182
	Rated current	A	0,55	0,55	0,55	0,57	0,6	0,6	0,83	0,83
Heating	Capacity	kW	4,0	5,0	6,3	8,0	9,0	10,0	12,5	15,5
	Input	W	34	125	125	125	143	143	182	182
	Rated current	A	0,55	0,55	0,55	0,57	0,6	0,6	0,83	0,83
Indoor fan motor	Type		Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor
	Input	w	33,4/31,1/29,5	125/105/85	125/105/85	125/105/85	143/122/110	143/122/110	(89,5/81,5/77,5) x2	(89,5/81,5/77,5) x2
	Capacitor	uF	1,2uF/450V	2UF/450V	2,5UF/450V	2,5UF/450V	3,5UF/450V	3,5UF/450V	2,5UF/450V x2	2,5UF/450V x2
	Speed(hi/mi/lo)	r/min	756/666/592	1310/1190/1040	1310/1190/1040	1310/1190/1040	1310/1210/1115	1310/1210/1115	1170/1070/995	1170/1070/995
Indoor coil	a.Number of rows		2	3	3	3	3	3	3	3
	b.Tube pitch(a)x row pitch(b)	mm	25,4x22	25,4x22	25,4x22	25,4x22	25,4x22	25,4x22	25,4x22	25,4x22
	c.Fin spacing	mm	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
	d.Fin type (code)		Hydrophilic aluminum							
	e.Tube outside dia.and type	mm	Φ9,53	Φ9,53	Φ9,53	Φ9,53	Φ9,53	Φ9,53	Φ9,53	Φ9,53
	f.Coil length x height x width	mm	804x44 x254	804x66 x254	804x66 x254	804x66 x254	1094x66 x254	1094x66 x254	1360x66 x254	1360x66 x254
	g.Number of circuits		3	3	3	3	5	5	5	5
Indoor air flow (Hi/Mi/Lo)		m^3/h	650/570/500	800/600/500	800/600/500	800/600/500	1200/900/700	1200/900/700	1980/1860/1730	1980/1860/1730
Sound level (sound pressure)		dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	45/43/40	45/43/40	47/45/42	47/45/42
Indoor unit	Dimension (W x H x D)	mm	990x660x206	990x660x206	990x660x206	990x660x206	1280 x 660x206	1280 x 660x206	1670x680x244	1670x680x244
	Packing (W x H x D)	mm	1089x744x296	1089x744x296	1089x744x296	1089x744x296	1379x744x296	1379x744x296	1764x760x329	1764x760x329
	Net/Gross weight	kg	28/34	29/35	29/35	29/35	34/41	34/41	49/58	49/58
Refrigerant	Type		R410A							
Design pressure		MPa	4,2/2,5	4,2/2,5	4,2/2,5	4,2/2,5	4,2/2,5	4,2/2,5	4,2/2,5	4,2/2,5
Refrigerant piping	Liquid side/ Gas side	mm	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ9,53/Φ16	Φ9,53/Φ16	Φ9,53/Φ16	Φ9,53/Φ16	Φ9,53/Φ16	Φ9,53/Φ16
Connection wiring	Power wiring	mm^2	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)	3×2,5(L≤20m); 3×3,5(L≤50m)
	Signal wiring	mm^2	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe diameter		mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Controller			Wireless WL-12-CM							
Operation temp		°C	Cooling: 17~32; Heating:10~28							

Notes:
1. Nominal cooling capacities are based on the following conditions: return airtemperature.: 27°CDB, 19°CWB, and outdoor temperature.:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Floor standing :Sound level is measured 1m from air-outlet in horizontal distance, 1m above the floor in vertical distance.
   Ceiling mounted:Sound level is measured 1m from air-outlet in horizontal distance,1m from air-outlet in vertical distance.

* Specifications are subject to change without prior notice for product improvement.

Wall-mounted

S type panel

R type panel

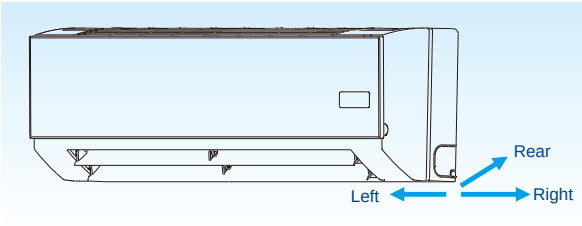
- Auto Restart
- Auto Addressing
- Cleanable Panel
- Anti-Cold Air Function
- Follow Me
- LED Display

Panel with LED display

The front panel and display panel have different colors to choose: white and brown for big panel, blue and brown for small panel.

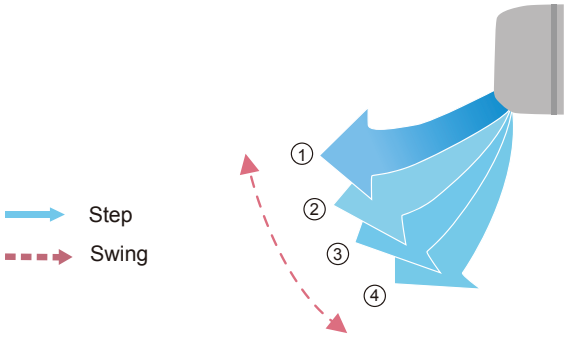
Convenient installation

Multi-refrigerant outlet pipe method: left\right\rear, more flexible for installation.
For S and R panel, the EXV is built-in the indoor unit, compact size, longer the connection pipe; gas pipe:468mm; liquid pipe: 550mm, more flexible for installation.
Adopts new type fixing plate, is easy to install and stable.



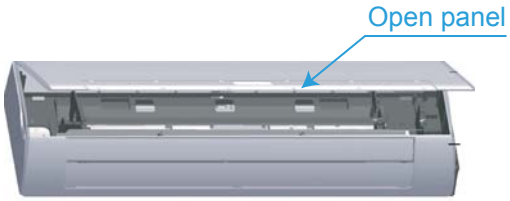
Auto swing louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Easy maintenance

The front panel can be removed for easy maintenance access.



Optimal comfort through better flow control and quiet operations

The mechanical expansion valve offers 2,000-stage element positions to ensure precise flow control and less modulation noise when the EXV is operating for a quiet and comfortable environment. Three air flow speeds: low, medium and high; double air guides. Smoother airflow and less turbulence is ensured by the multi-blade fan and the air guide design.

S type panel

Model			42VH006H112000101	42VH009H112000101	42VH012H112000101	42VH018H112000101	42VH024H112000101
Power supply		V- Ph-Hz	220-240~1~50				
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6
	Input	W	31	31	31	44	44
	Rated current	A	0,14	0,14	0,14	0,2	0,2
Heating	Capacity	kW	2,4	3,1	4,0	5,0	6,0
	Input	W	31	31	31	44	44
	Rated current	A	0,14	0,14	0,14	0,2	0,2
Heater	Capacity	kW	0,75	0,75	0,75	0,9	0,9
	Input	W	750	750	750	900	900
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	30/24/22	30/24/22	30/24/22	44/42/39	44/42/39
	Capacitor	uF	1,2	1,2	1,2	1,2	1,2
	Speed (hi/ mid/lo)	r/min	810/760/700	810/760/700	810/760/700	980/880/760	980/880/760
Indoor coil	Number of rows		2	2	2	2	2
	Tube pitch(a) x row pitch(b)	mm	21*13.37	21*13.37	21*13.37	21*13.37	21*13.37
	Fin spacing	mm	1,5	1,5	1,5	1,5	1,5
	Fin type		Hydrophilic Aluminium				
	Tube outside dia. and type	mm	Φ7	Φ7	Φ7	Φ7	Φ7
			Inner groove Tube	Inner groove Tube	Inner groove Tube	Inner groove Tube	Inner groove Tube
	Coil length x height x width	mm	635*315*26.74	635*315*26.74	635*315*26.74	785*357*26.74	785*357*26.74
	Number of circuits		3	3	3	6	6
Indoor air flow (H/M/L)		m^3/h	525/480/430	525/480/430	590/520/480	860/755/630	925/860/755
Indoor noise level (sound pressure)		dB(A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Indoor unit	Dimension (W*H*D)	mm	915 *290*230	915 *290*230	915 *290*230	1072 *315*230	1072 *315*230
	Packing (W*H*D)	mm	1020*390*315	1020*390*315	1020*390*315	1180*415*315	1180*415*315
	Net/Gross weight	kg	13/16.5 13.3/16.8(With Heater)	13/16.5 13.3/16.8(With Heater)	13/16.5 13.3/16.8(With Heater)	15.1/18.8 15.5/19.2(With Heater)	15.1/18.8 15.5/19.2(With Heater)
Refrigerant type			R410A				
Throttle			Inside Electric expansive valve				
Design pressure		MPa	2.6/4.4	2.6/4.4	2.6/4.4	2.6/4.4	2.6/4.4
Refrigerant piping	Liquid side/ Gas side	mm	6.35/12.7	6.35/12.7	6.35/12.7	6.35/12.7	9.53/15.9
Connecting wiring	Power wiring	Nb× mm^2	3×2.5	3×2.5	3×2.5	3×2.5	3×2.5
	Signal wiring	Nb×mm^2	3×0.75	3×0.75	3×0.75	3×0.75	3×0.75
Drainage water pipe dia.		mm	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5	ODΦ16.5
Controller			Wireless WL-12-CM				

Notes:
1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured 1m below the air outlet horizontally and vertically.

*Specifications are subject to change without prior notice for product improvement.

R type panel

Model			42VH028H112000102	42VH032H112000102	42VH036H112000102
Power supply		V- Ph-Hz	220-240V~, 1Ph, 50Hz		
Cooling	Capacity	kW	7,1	8,0	9,0
	Input	W	75	86	86
	Rated current	A	0,33	0,39	0,39
Heating	Capacity	kW	8,0	9,0	10,0
	Input	W	75	86	86
	Rated current	A	0,33	0,39	0,39
Indoor fan motor	Type		AC motor	AC motor	AC motor
	Input	W	99/83/53	99/83/53	99/83/53
	Capacitor	μF	3	3	3
	Speed (h/m/l)	r/min	1190/880/680	1190/880/680	1190/880/680
Indoor coil	Number of rows		2	2	2
	Tube pitch* row pitch	mm	21*13.37	21*13.37	21*13.37
	Fin spacing	mm	1,3	1,3	1,3
	Fin type		Hydrophilic aluminum		
	Tube outside diameter and type	mm	Φ7	Φ7	Φ7
			Inner groove tube	Inner groove tube	Inner groove tube
	length* height	mm	965*63		
	Number of circuits		6	6	6
Indoor air flow (H/M/L)		m^3/h	1190/880/680	1320/840/640	1320/840/640
Indoor noise level (H/M/L)		dB(A)	47/43/42	48/43/38	49/43/38
Indoor unit	Dimension (W*H*D)	mm	1250*245*325	1250*245*325	1250*245*325
	Packing (W*H*D)	mm	1345*335*430	1345*335*430	1345*335*430
	Net/Gross weight	kg	19.9/25	19.9/25	19.9/25
Refrigerant type			R410A		
Throttle		Type	Inside Electrical expansive valve		
		Model	EFM-25YGMISZ-6M-A	EFM-25YGMISZ-6M-A	EFM-25YGMISZ-6M-A
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
Connecting wiring	Power wiring	mm^2	3*2.5	3*2.5	3*2.5
	Signal wiring	mm^2	3*0.75	3*0.75	3*0.75
Drainage water pipe diameter			ODΦ16.5	ODΦ16.5	ODΦ16.5
Controller			Wireless WL-12-CM		

Notes:
1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured 1m below the air outlet horizontally and vertically.

*Specifications are subject to change without prior notice for product improvement.

Floor Standing

Exposed version with air intake from front(F1 series)

Exposed version with air intake from below(F2 series)

- Auto Restart
- Cleanable Panel
- Auto Addressing
- Anti-Cold Air Function
- Follow Me
- LED Display

Easy installation

Floor standing types can be hung on the wall or installed on the floor. The floor type of unit can make cleaning and maintenance much easier. Running the piping from the rear allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

Easy maintenance

Filter is provided as a standard accessory. It can be removed and cleaned easily thanks to the sophisticated design and the product's removable blades.

The streamlined appearance harmonizes the unit with a given room's interior decor. All metal parts are made of commercial grade galvanized steel for maximum protection against corrosion.

Saves installation space

Concealed floor standing type

The body is concealed in the skirting board to improve aesthetics. The body is just 212mm deep, and can be installed at the room's perimeter. Special installation methods eliminate noise in the room area.

series concealed type

Model			42VS006H112003010	42VS009H112003010	42VS012H112003010	42VS018H112003010	42VS024H112003010	42VS028H112003010	42VS032H112003010
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz						
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6	7,1	8,0
	Input	W	40	45	49	50	95	139	139
	Rated current	A	0,2	0,2	0,2	0,2	0,4	0,6	0,6
Heating	Capacity	kW	2,4	3,2	4,0	5,0	6,3	8,0	9,0
	Input	W	40	45	49	50	95	139	139
	Rated current	A	0,2	0,2	0,2	0,2	0,4	0,6	0,6
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	41	42	39	49	95	138,5	138,5
	Capacitor	μF	0,80	1,00	1,20	2,00	2,50	3,00	3,00
	Speed (hi/mid/lo)	r/min	795/753/670	935/810/720	830/750/470	880/790/555	915/770/660	1120/1020/880	1120/1020/880
Indoor coil	Number of rows		2	2	3	3	2	2	3
	Tube pitch(a)x row pitch(b)	mm	25,4*22	25,4*22	25,4*22	25,4 X 22	25,4 X 22	25,4 X 22	25,4 X 22
	Fin spacing	mm	1,8	1,8	1,8	1,8	1,8	1,8	1,8
	Fin type		Hydrophilic aluminum						
	Tube outside diameter and type	mm	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube
	Coil length x height x width	mm	568 X 254 X 44	568 X 254 X 44	768 X 254 X 66	768 X 254 X 66	1068 X 254 X 44	1068 X 254 X 44	1068 X 254 X 66
	Number of circuits		3	3	3		4	4	3
Indoor air flow (H/M/L)		m^3/h	530/456/400	569/485/421	624/522/375	660/542/440	1150/970/830	1380/1100/870	1332/1212/1023
Indoor external static pressure (Hi)		Pa	0/0/10	0/0/10	0/0/10	0/0/10	0/0/10	0/0/10	0/0/10
Indoor noise level (Sound pressure)(Hi/Mi/Lo)		dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
Indoor unit	Dimension (W×H×D)	mm	840 X 212 X 545	840 X 212 X 545	1036 X212 X 545	1036 X 212 X 545	1336 X 212 X 545	1336 X 212 X 545	1336 X 212 X 545
	Packing (W×H×D)	mm	925 X 305 X 639	925 X 305 X 639	1125 X 305 X 639	1125 X305 X 639	1425 X 305 X 639	1425 X 305 X 639	1425 X 305 X 639
	Net/Gross weight	Kg	22/25,5	22/25,5	29,5/34	29,5/34	36/40	36/40	36/40
Refrigerant type			R410A						
Throttle		Type	Electrical expand valve						
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Connecting wiring	Power wiring	mm^2	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0
	Signal wiring	mm^2	6×0,75	6×0,75	6×0,75	6×0,75	6×0,75	6×0,75	6×0,75
Drainage water pipe diameter		mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Controller			Wireless WL-12-CM						
Operation temp.		°C	Cooling: 17~32; Heating:10~28						

Model(Side air inlet)			42VS006H112002010	42VS009H112002010	42VS012H112002010	42VS018H112002010	42VS024H112002010	42VS028H112002010	42VS032H112002010
Model (Bottom air inlet)			42VS006H112001010	42VS009H112001010	42VS012H112001010	42VS018H112001010	42VS024H112001010	42VS028H112001010	42VS032H112001010
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz						
Cooling	Capacity	kW	2,2	2,8	3,6	4,5	5,6	7,1	8,0
	Input	W	40	40	49	49	95	139	139
	Rated current	A	0,19	0,2	0,19	0,25	0,38	0,57	0,57
Heating	Capacity	kW	2,4	3,2	4,0	5,0	6,3	8,0	9,0
	Input	W	40	40	49	49	95	139	139
	Rated current	A	0,19	0,2	0,19	0,25	0,38	0,57	0,57
Indoor fan motor	Type		AC motor	AC motor	AC motor	AC motor	AC motor	AC motor	AC motor
	Input	W	40	42	49	49	95	138,5	138,5
	Capacitor	μF	0,8	1,0	1,2	2,0	2,5	3,0	3,0
	Speed (hi/mid/lo)	r/min	870/745/660	935/810/720	750/645/500	820/745/600	915/770/660	1120/1020/880	1120/1020/880
Indoor coil	Number of rows		2	2	3	3	2	2	3
	Tube pitch(a)x row pitch(b)	mm	25,4*22	25,4*22	25,4*22	25,4 X 22	25,4 X 22	25,4 X 22	25,4 X 22
	Fin spacing	mm	1,8	1,8	1,8	1,8	1,8	1,8	1,8
	Fin type		Hydrophilic aluminum						
	Tube outside diam-eter and type	mm	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube	Φ9,52 Inner grooved tube
	Coil length x height x width	mm	568 X 254 X 44	568 X 254 X 44	768 X 254 X 66	768 X 254 X 66	1068 X 254 X 44	1068 X 254 X 44	1068 X 254 X66
	Number of circuits		3	3	3	3	4	4	3
Indoor air flow (H/M/L)		m^3/h	530/456/400	569/485/421	624/522/375	660/542/440	1150/970/830	1380/1100/870	1332/1212/1023
Indoor external static pressure (Hi)		Pa	0	0	0	0	0	0	0
Indoor noise level (Hi/Mid/Lo)	(Side air inlet)		36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
	(Bottom air inlet)		36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33
Indoor unit / Di-mension (W×H×D)	(Side air inlet)		1000 X 220 X 625	1000 X 220 X 625	1200 X 220 X 625	1200 X 220 X 625	1500 X 220 X 625	1500 X 220 X 625	1500 X 220 X 625
	(Bottom air inlet)		1000 X 220 X 625	1000 X 220 X 625	1200 X 220 X 625	1200 X 220 X 625	1500 X 220 X 625	1500 X 220 X 625	1500 X 220 X 625
	(Side air inlet)	mm	1089 X 312 X 722	1089 X 312 X 722	1289X 312 X 722	1289 X 312 X 722	1589 X 312 X 722	1589 X 312 X 722	1589 X 312 X 722
	(Bottom air inlet)		1182 X 312 X 722	1182 X 312 X 722	1382 X 312 X 722	1382 X 312 X 722	1682 X 312 X 722	1682 X 312 X 722	1682 X 312 X 722
Net/Gross weight	(Side air inlet)	kg	30/35	30/35	37/43	37/43	44/50	44/50	44/50
	(Bottom air inlet)		30/38	30/38	37/46	37/46	44/53	44/53	44/53
Refrigerant type			R410A						
Throttle		Type	Electrical expand valve						
Design pressure		MPa	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6	4,4/2,6
Refrigerant piping	Liquid side/ Gas side	mm	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7
Connecting wiring	Power wiring	mm^2	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0	3×1,0
	Signal wiring	mm^2	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe diameter		mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Controller			Wireless WL-12-CM						
Operation temp.		°C	Cooling: 17~32; Heating:10~28						

Console

- Auto Restart
- Cleanable Panel
- Auto Addressing
- Anti-Cold Air Function
- Follow Me
- LED Display

Compact size and stylish

- The elegant and thin unit body complements the existing decor and saves space.
- The EXV is installed inside of the indoor unit for added compactness.

Flexible installation

- Can be installed on the floor or lower wall

- As a floor standing type, it can be semi or fully accessed without losing capacity.

High Comfort

- Flexible air blow: vertical auto swing and wide angle louvers ensure that warm air reaches every corner of the room and increases the air flow coverage.
- Indoor unit adopts DC motor with five fan speeds to meet different requirements.
- The mechanical expansion valve offers 2.000-stage element positions to ensure precise flow control and lower modulation noise when the EXV is operating.

Powerful mode can be selected for rapid cooling or heating

COOLING MODE

Quick cooling

To maintain temperature

HEATING MODE

Anti-cold air

Normal operation

High efficiency filter

- Built in formaldehyde nemesis filter
- Active-carbon and biological anti-virus filter are optional.

Two air outlets and four air inlets

Four directions of air inlet;
two options of air outlet: Up and Down; or Up only.

Bottom, top, and right/left side, for better ventilation.

Low-noise design

Five-speed indoor unit; low noise; low power consumption.

Low noise operation, lowest to 26dB(A)

Model			42VC006H112000010	42VC009H112000010	42VC012H112000010	42VC018H112000010
Power supply		V- Ph-Hz	220-240V, 1Ph, 50Hz			
Cooling	Capacity	kW	2,2	2,8	3,6	4,5
	Input	W	20	24	33	44
	Rated current	A	0,09	0,11	0,11	0,2
Heating	Capacity	kW	2,6	3,2	4,0	5,0
	Input	W	20	24	33	44
	Rated current	A	0,09	0,11	0,11	0,2
Indoor fan motor	Type		DC brushless motor	DC brushless motor	DC brushless motor	DC brushless motor
	Input	W	16,8	19,5	19,5	30,5
	Capacitor	μF	560/530/460	610/560/460	610/560/460	780/680/530
	Speed (hi/mid/lo)	r/min	1,0	1,5	2,0	2,0
Indoor coil	Number of rows		21*13,37	21*13,37	21*13,37	21*13,37
	Tube pitch(a)xrow pitch(b)	mm	1,3	1,3	1,3	1,3
	Fin spacing	mm	Hydrophilic aluminum			
	Fin type		Φ7	Φ7	Φ7	Φ7
	Tube outside diameter and type	mm	Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube
	Coil length x height x width	mm	512*318*22	512*318*44	512*318*44	512*318*44
	Number of circuits		1	2	2	2
Indoor air flow (H/M/L)		m^3/h	430/345/229	510/430/229	510/430/229	660/512/400
Indoor noise level (Hi/Mid/Lo)		dB(A)	38/32/26	39/33/27	39/33/27	42/39/36
Indoor unit	Dimension (W×H×D)	mm	700*600*210	700*600*210	700*600*210	700*600*210
	Packing (W×H×D)	mm	810*710*305	810*710*305	810*710*305	810*710*305
	Net/Gross weight	kg	14/19	15/20	15/20	15/20
Refrigerant type			R410A			
Throttle		Type	EXV (Mechanical gear modulation, Integrated with the evaporator)			
Design pressure		MPa	4,4/2,6			
Refrigerant piping	Liquid side/ Gas side	mm	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7	Φ6,35/Φ12,7
Connecting wiring	Power wiring	mm^2	3×2,5	3×2,5	3×2,5	3×2,5
	Signal wiring	mm^2	3×0,75	3×0,75	3×0,75	3×0,75
Drainage water pipe diameter		mm	ODΦ16	ODΦ16	ODΦ16	ODΦ16
Controller			Wireless WL-12-CM			
Operation temp.		°C	Cooling: 17~32; Heating:10~28			

Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, and outdoor temperature:35°CDB, equivalent ref. piping: 8m (horizontal)
2. Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
3. Sound level is measured 1m from the air out-let in horizontal distance and 1m above the floor in vertical distance.

* Specifications are subject to change without prior notice for product improvement.

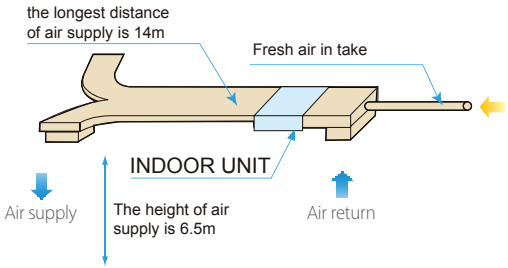
Fresh Air Processing Unit

Healthy and comfortable

Fresh air is imported, provides a healthy and comfortable living environment.
Four speed fan motor(model 125&140)

100% Fresh air processing unit

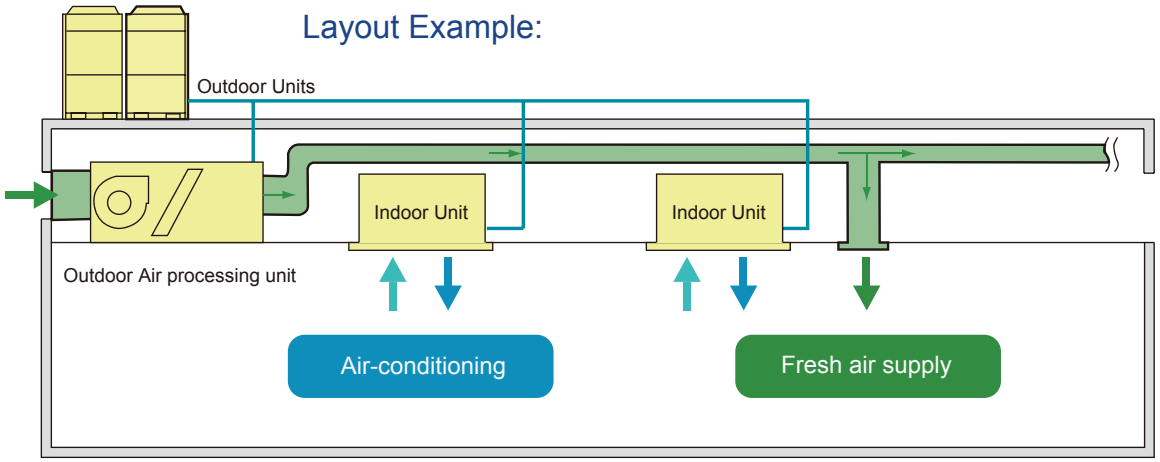
Both fresh air filtration and heating/cooling can be achieved in a single system.
Indoor units and fresh air processing unit can be connected to the same refrigerant system, increasing design flexibility and greatly reducing total system costs.



High external static pressure

External static pressure can be up to 196Pa(models 125 to 140) and 280Pa(models 200 to 280) for more flexible duct applications. The maximum distance of air supply is about 14m and the maximum height of air supply is about 6.5m.

Innovative air supply technology for excellent room temperature control



Model			42VD052H112211010	42VD054H112211010	42VD056H112211010	42VD058H112211010	42VD060H112211010
Power supply		V-Ph-Hz	220-240V-1Ph-50Hz				
Cooling Capacity		kW	12,5	14,0	20,0	25,0	28,0
Heating Capacity		kW	10,5	12,0	18,0	20,0	22,0
Max. current		A	2,4	2,4	5,3	5,6	5,6
Indoor fan motor	Type		Ac Motor	Ac Motor	Ac Motor	Ac Motor	Ac Motor
	Input	W	430	430	1000(×2)	1063(×2)	1063(×2)
	Capacitor	uF	10	10	10(×2)	12(×2)	12(×2)
	Speed(Hi/mi/lo)	r/min	854/769/695	854/769/695	855/784/712 (×2)	900/815/747 (×2)	900/815/747 (×2)
Indoor coil	Number of rows		4	4	4	4	4
	Tube pitch(a)x row pitch(b)	mm	25,4×22	25,4×22	25,4×22	25,4×22	25,4×22
	Fin spacing	mm	1,6	1,6	1,8	1,8	1,8
	Fin type (code)		hydrophilia arcuate fin aluminum foil				
	Tube outside dia. and type		9,52	9,52	9,52	9,52	9,52
		mm	Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube	Inner groove tube
	Coil length x height x width	mm	996*355,6×88	996*355,6×88	1125×512×88	1125×512×88	1125×512×88
	Number of circuits		7	7	20	20	20
Indoor air flow (Hi/Mid/Lo)		m^3/h	1700/1350/1050	1700/1350/1050	3150/2650/2300	3300/2850/2500	3300/2850/2500
Indoor external static pressure (Hi)		Pa	30~220	30~220	50~260	50~260	50~260
Indoor noise level (Sound pressure)(Hi/Mid/Lo)		dB(A)	54/52/50	54/52/50	54/53/51	55/54/52	55/54/52
Indoor unit	Dimension (W×H×D)	mm	1368*420*691	1368*420*691	1443×470×810	1443×470×810	1443×470×810
	Packing (W×H×D)	mm	1436*440*768	1436*440*768	1509×522×964	1509×522×964	1509×522×964
	Net/Gross weight	Kg	69,5/76	69,5/76	115/125	115/125	115/125
Refrigerant type			R410A				
Throttle type			Electric expansive valve				
Design pressure		MPa	4,2/2,0	4,2/2,0	4,2/2,0	4,2/2,0	4,2/2,0
Refrigerant piping	Liquid side/ Gas side	mm	Φ9,52/Φ16	Φ9,52/Φ16	Φ9,52/Φ16	Φ9,52/Φ16	Φ9,52/Φ16
Connection wiring	Power wiring	$Nb×mm^2$	2*2,5+1*2,0	2*2,5+1*2,0	3×4,0	3×4,0	3×4,0
	Signal wiring	$Nb×mm^2$	3*0,75	3*0,75	3*1,0	3*1,0	3*1,0
Drainage pipe diameter		mm^2	Φ25	Φ25	Φ32	Φ32	Φ32
Controller			Wireless WL-12-CM				
Operation temp		°C	-5~43				

Notes:

1 . Nominal cooling capacities are based on the following conditions: outdoor air temperature: 33ºC DB, 24ºC WB, equivalent ref. piping: 8m (horizontal)

2. Nominal heating capacities are based on the following conditions: outdoor air temperature: 0°CDB, -1°CWB, equivalent ref. Piping: 8m (horizontal)

3. Sound level is measured 1,4m from the air out-let.

* external static pressure are based on high speed indoor air flow.

* Specifications are subject to change without prior notice for product improvement.

Connection Conditions:

The following restrictions must be observed in order to maintain the indoor units connected to the same system.

* When outdoor-air processing units are connected, the total connection capacity must be within 50% to 100% of that of the outdoor units.

* When outdoor-air processing units and standard indoor units are connected, the total connection capacity of the outdoor-air processing units must not exceed 30% of that of the outdoor units.

* Outdoor-air processing units can be used without indoor units.

* The fresh air processing unit is not available for V4+R system

Control Systems

Carrier
United Technologies
turn to the experts

Network Control

Data converter
CCM15

iPad

Laptop

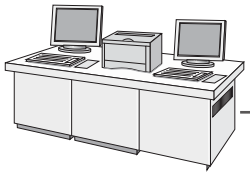
Connectable to various sized Gateway

IMM Software

M-INTERFACE Gateway

Lonworks BMS

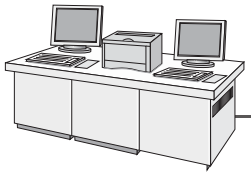
NW-LNW-CM



BACnet BMS

NW-BCN-CM

Web monitoring system



Modbus BMS

Modbus gateway

NW-MOD-CH

Centralized Control

Indoor Centralized Controller (Touch key)

CRF-30-CM-B

X,Y,E

Indoor Centralized Controller

CRF-10-CM

X,Y,E

Outdoor Centralized Monitor

F1,F2,E

CRC-10-CM

K1,K2,E

Note: The wires in the diagram show the signal flows only, while not represent the actual connecting ways.

Individual control

Wired controller

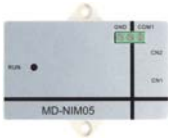
WR - 29B - CM
WR - 10 - CM
WR - 90 - CM

Remote controller

WL - 12 - CM
WL - 14 - CM

Accessories

Card-key Interface NIM05



NIM05

Card-key

Wired controller

Infrared Sensor NIM09

Infrared control box

Infrared sensor module

Wired controller

Outdoor units

Comparison of Controllers

Item		Remote controller		Wired Controller		Centralized Controller	
Model name		WL-14-CM	WL-12-CM (included)	WR-10-CM WR-12-CM	WR-29B-CM WR-90-CM	CRF-10-CM	CRF-30-CM-B
MAX. controllable IDU		1		1	1	64	64
A/C control function	On/Off	●	●	●	●	●	●
	Operation mode setting	●	●	●	●	●	●
	Fan speed setting	●	●	●	●	●	●
	Room temp. setting	●	●	●	●	●	●
	Vertical swing	●	●	-	-	-	-
	Horizontal swing	●	●	●	●	●	●
	Air direction	-/●	-	-	-	-	-
	Economic mode	●	●	●	●	-	-
	Central setting	-	-	-	-	●	●
	Keyboard lock	●	●/-	●	●	●	●
	Mode lock	-	-	●	●	●	●
	Remote signal receiving	-	-	-	●	-	-
	26℃ shortcut setting	●	-	-	●	-	-
	Silent mode	-	-	-	●	-	-
Display	Backlight	●	●	-/●	●	●	●
	Current time	-	-	●/-	●	-	-
	RC prohibition	-	-	-	-	●	●
	Address	-	-	-	-	●	●
	Error code	-	-	-	-	●	●
	Room temp.	-	-	-	-	●	●
Timer	Period	-	-	-	-	-	-
	On/Off per day	●	●	-/●	-	-	-
	On/Off per week	-	-	-	-	-	-
	On/Off timer	●	-	●	●	●	●
Control	FOLLOW ME	●	-	-/●	●	-	-
	Emergent stop	-	-	-	-	●	●
	Emergent start	-	-	-	-	●	●
	Address setting	●	●	●/-	●	-	-
	BMS access	-	-	-	-	●	●
	Control via internet	-	-	-	-		
	Air filter cleaning reminding	-	-	●/-	●	●	●

●: Available controller functions

—: Not available controller functions

Wireless Remote Controller

WL-14-CM (Optional)

WL-12-CM

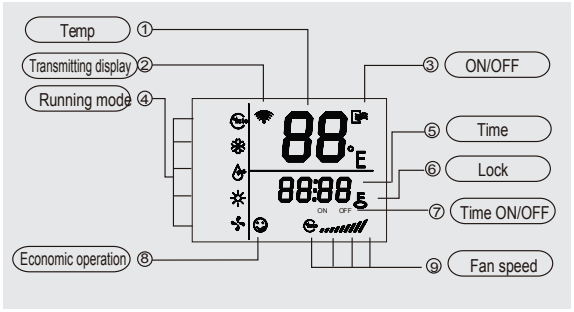
Functions

Portable device (standard)

The wireless remote controller is a portable control device that enables users to control the A/C anywhere within a distance of 11m.

Simplified user interface

Users can synchronize the air conditioners' parameters with the display panel on the wireless remote controller to precisely control a room's environment.

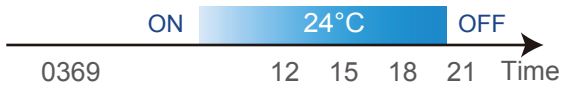


Background light

The background light allows users to operate the device in a dark room. The device lights up when a button is pressed, and turns off when a given operation is completed.

Built-in timer

The built-in daily timer offers the convenience of automatically starting and stopping the system at set times.



The indoor unit is set to work in automode from 8:00 to 20:00

Setting addresses

Besides the machine's auto addressing function, users can set the indoor unit's address on the wireless remote controller.

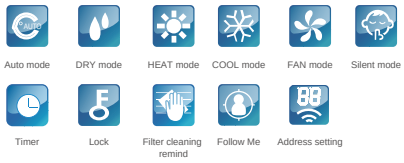
Specifications

Model	WL-14-CH	WL-12-CH
Dimensions (H×W×D)(mm)	150×60×15	150×65×20
Power (V)	1.5V(LR03/AAA)×2	

Wired Controller

WR-29B-CM
(Touch button)

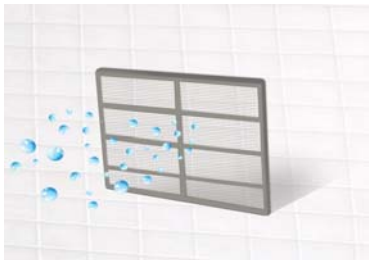
WR-90-CM (C) or (D)



Functions

Air filter cleaning reminding

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the pre-set value, it will remind users need to clean the air filter of the indoor unit.
Clean the filter regularly can keep indoor air fresh and clean, good for your health.



Available for WR-29B-CM / WR-90-CM

Silent mode

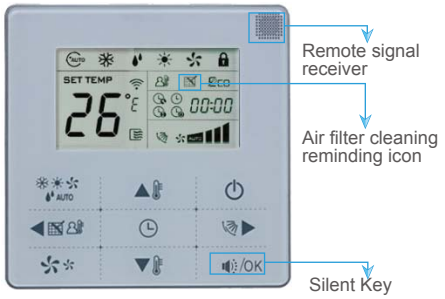
Under the cooling, heating and auto mode,when operate the silent mode, it can reduce the running noise through setting the fan speed to low. This will help you bring a quieter environment.

Remote signal receiving function

WR-29B-CM and WR-90-CM provide a signal receiver for remote controller. Signal from remote controller can be received by a wired controller, then sent to the indoor unit and it conveniences to control.

Locking wired controller

The locking function can be used to prevent other people from using the controller.



WR-29B-CM
(Touch button)

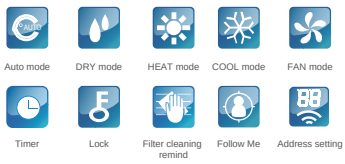
Specifications

Model	WR-29B-CM	WR-90-CM (C)
Dimensions (H×W×D)(mm)	120×120×20	86×86×16.5
Power (V)	DC 5V	

Wired Controller

WR-10-CM

WR-12-CM

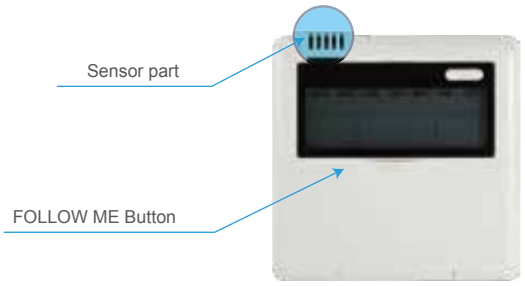


Functions

Follow me

With the FOLLOW ME function, the wired controller can detect the air temperature at the user' s altitude instead that of the ceiling or floor. This helps making the room environment comfortable and the temperature accurate.

The follow me function is available for WR-12-CM / WR-29B-CM

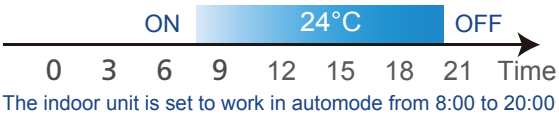


Setting addresses

With the address setting function,and easy for the installation and future service. The service person can set the address for indoor unit by WR-10-CM, WR-29B-CM and WR-90-CM(C).

Built-in timer

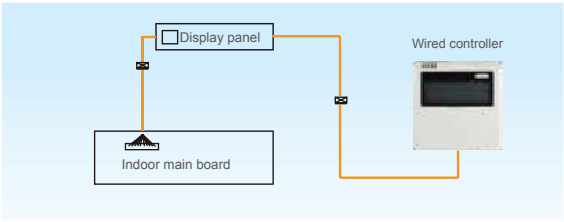
Built-in daily timer offers the convenience of automatically starting and stopping the system at set times.



The indoor unit is set to work in automode from 8:00 to 20:00

Easy connection

The wired controller conveniently connects to the indoor unit's display panel via connecting wire.



Specifications

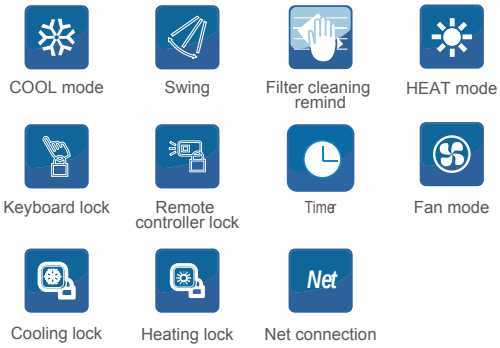
Model	WR-10-CM	WR-12-CM
Dimensions (H×W×D)(mm)	120×120×15	120×120×15
Power (V)	DC 5V	

Wired Controller

Indoor Centralized Controller

CRF-10-CM

CRF-30-CM-B



Functions

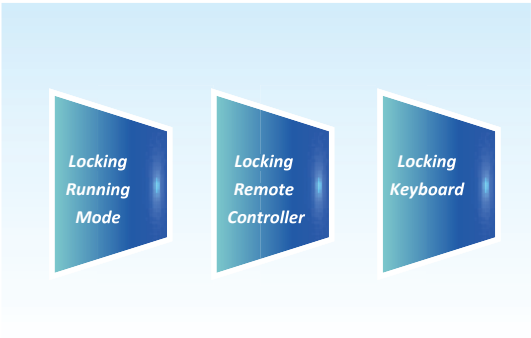
Centralized control

The centralized controller is a multifunctional device that can control up to 64 indoor units within a maximum connection length of 1,200m.
The device connects to the master outdoor units to simplify and centralize the wiring configuration.
The 2 ways of connecting are as follow:

Notes: when connection via XYE ports of master ODU, the ODU must be set to automatic searching address mode.

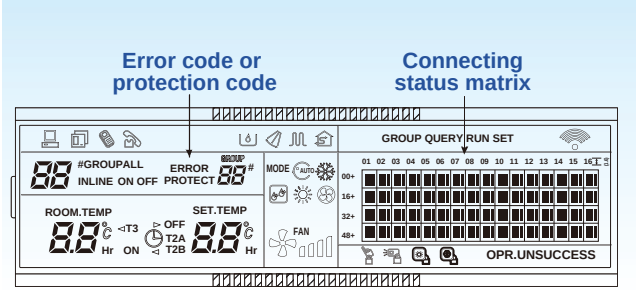
Three lock modes

Centralized controller provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the centralized controller's keyboard as they wish.



Indoor unit working status display

The centralized controller displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.



Air filter cleaning reminding function

The air filter cleaning reminder function is only available on the touch-key central controller CRF-30-CM-B. The "FL" icon indicates that the air filter in a given indoor unit needs cleaning.

CRF-30-CM-B

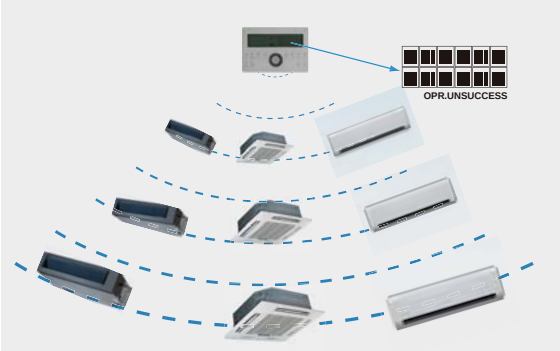
Functions

Stylish design

CRF's stylish design suits high-end environments. The keyboard lock function is used to prevent operational mistakes.

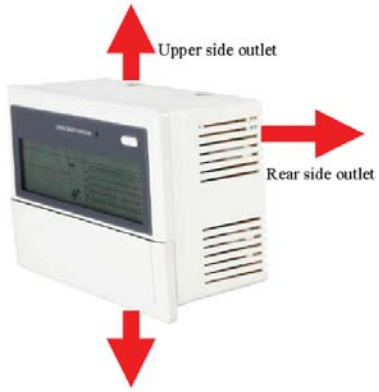
Single/unified control

The control object can be either a single unit or all units, which vastly simplifies the control process. Operation signal feedback ensures that all units are working in the correct mode.



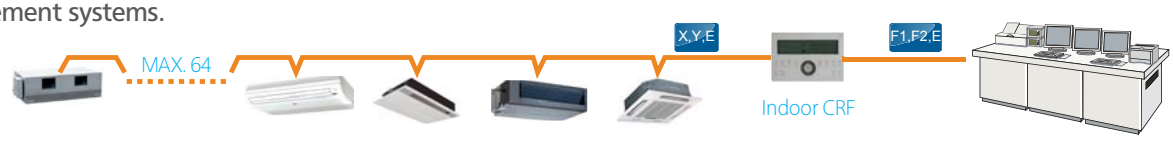
Easy installation

Centralized controller offers two different appearances to mostly suit the installation. The A structure must be embedded into the wall and the B structure doesn't need. Both of them are easy to operate.



Access to network monitoring

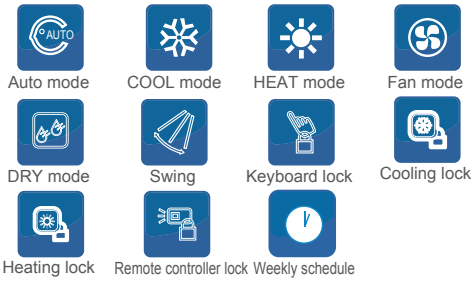
The centralized controller is able to bridge up to 64 indoor units on the network monitoring and building management systems.



Specifications

Model	CRF-10-CM	CRF-30-CM-B
Dimensions (H*W*D)(mm)	179×119×74	180×122×78 and 180×122×68
Power (V)	198-242V(50/60Hz)	

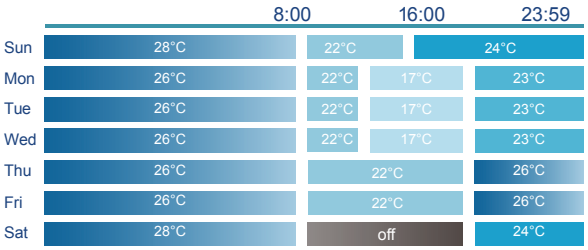
Weekly Schedule Centralized Controller
WCRF-10-CM



Functions

Weekly schedule

WCRF-10-CM can include up to 64 indoor units in the weekly schedule. Users can set up to 4 periods per day, and select the desired running mode and room temperature. The operating object can be a single indoor unit or all the indoor units.

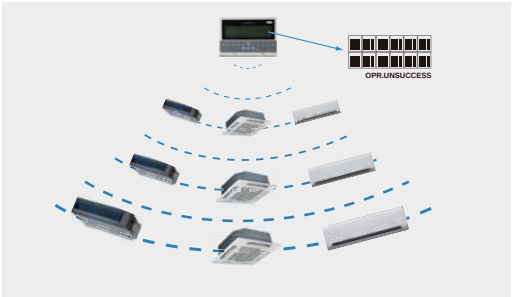


Three lock modes

Centralized controller WCRF-10-CM provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the WCRF-10-CM's keyboard as they wish.

Single/unified control mode

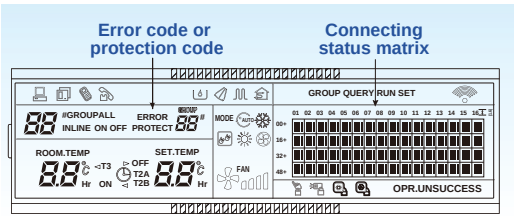
The control object can be either a single unit or all units, which vastly simplifies the control process. Operation signal feedback ensures that all units are working in the correct mode.



Indoor unit working status display

WCRF-10-CM displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.

Notes: when connection via XYE ports of master ODU, the ODU must be set to automatic searching address mode.



Specifications

Model	WCRF-10-CM
Dimensions (H*W*D)(mm)	179×119×74
Power (V)	198-242V(50/60Hz)

Unified On/Off Controller

Unified controller design with graceful appearance and explicit panel.
Can control single or group indoor units.

Functions

Unified control

Offers on/off and heating/cooling functionality for indoor units based on preset temperatures to ensure easy management.

Centralized control

Can be used to centrally control up to 16 indoor units.

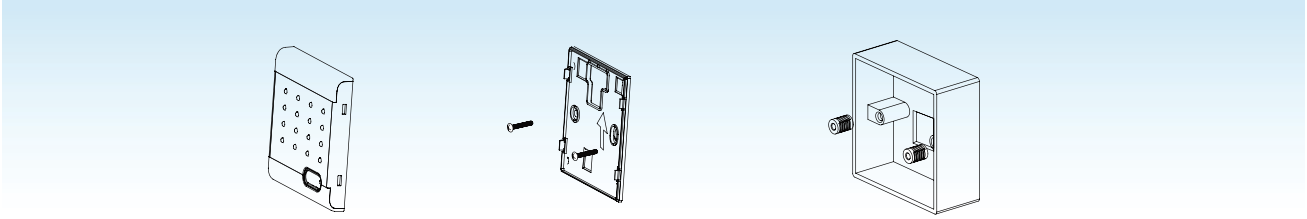
Light indicator

The LEDs on indicate the indoor units' running status for easy fault detection. The lights switch off automatically to save energy once a given operation is complete. The indicators are as follows:

Light	Blue	Red	Flash
Single On/Off key	Cooling/Fan	Heating	IDU Error
Unified On/Off key			EEPROM Error

Easy installation

Can be easily mounted on the built-in cabinet:



Centralized Monitor

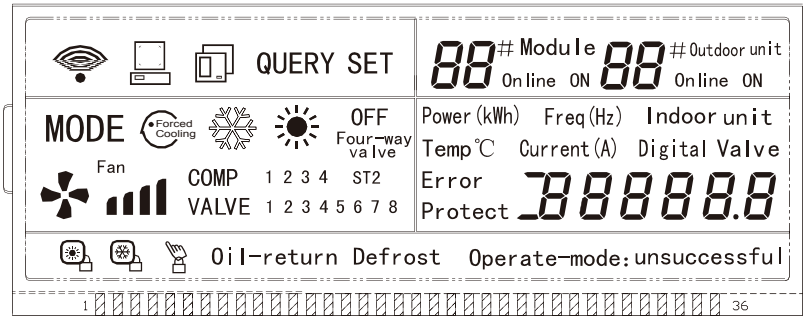
Outdoor Centralized Monitor
CRC-10-CM

Query parameters
4-way/EXV valve
Protection/ Error codes
Power consumption
With the ODU communication
With the PC communication
Forced Cooling

Functions

ODU parameters display

CRC-10-CM enables users to easily check outdoor units' running status, including frequency, temperature, current, pressure, protection codes and error codes. ODU parameters display



Graph 2 LCD Screen

Access to network monitoring

CRC-10-CM can connect up to 8 refrigerant systems and 32 outdoor units to the network system.

Specifications

Model	CRC-10-CM
Dimensions(H×W×D)(mm)	120×120×15
Power (V)	198-242V(50/60Hz)

Central Control Software

Carrier
United Technologies
turn to the experts

Central Control Software

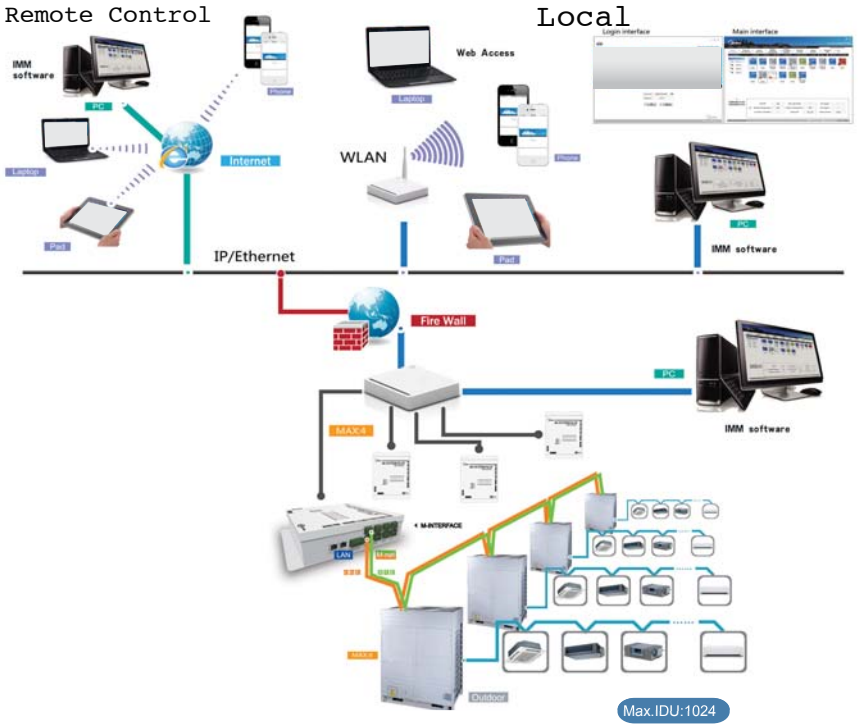
IM(Intelligent Manager)
4th Generation Network Control System

Functions

Intelligent Manager designed specifically to control VRF systems, is based on a centralized format and dedicated to the complete control and monitoring of all the system's functions. It can be used as a flexible multi-purpose system and applied to a variety of needs, according to the scale, purpose and control method of each building.

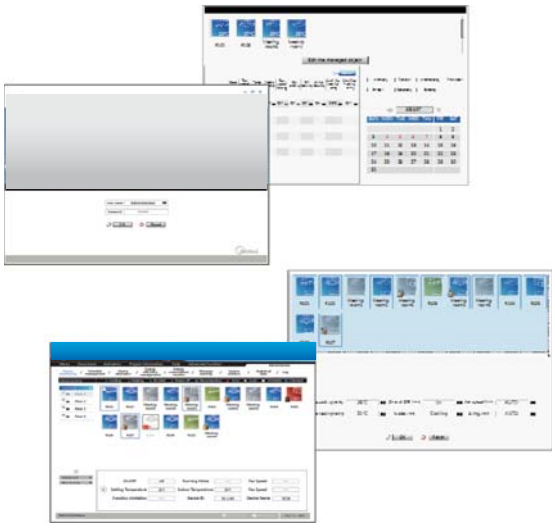
- Up to 4 M-interfaces, 64 refrigerant systems, 1,024 indoor units, and 256 outdoor units can be controlled by one PC.
- Web Access
- User friendly operation
- Central building monitoring and control
- Energy saving management
- SMS modem (optional)
- Electricity charge distribution
- Annual schedule control
- Low-load operation indicate
- Generate operational history reports (daily, weekly, monthly)
- Fault display & Warning message
- Filter replacement reminder
- Emergency stop and Alarm signal output

Network Control Application



- Can run on ,Window 7_64 bit and Window XP_32 bit.
- Can monitor and control A/C anytime, anywhere by PC, iPhone, iPad and notebook computer.
- Support WEB access: IE, Firefox, Safari and Chrome.
- Enables remote access through DSL, VPNs and so on.

Various Managements



Simple Operation and Management

Click & Operate, a user-friendly interface allows even non-experts to perform the building management system easily.

Data Management

Operational information of individual indoor units are monitored, allowing for distribution of power consumption at outdoor units.
Stores operation data on multiple systems and displays it in graphical format for visual management.
Uses IMM software to generate tenant reports and help building owners bill for energy use.

Electricity Charge Distribution(Patented)

Provides information on proportional electrical power distribution to optimize electricity consumption management.

Uses software to calculate electric power proportional distribution, output and save electricity consumption data for each indoor unit (or group) which is connected to the intelligent manager.
It calculates the consumption rates according to capacity demand which is based on various parameters: setting temperature, room temperature, running mode, rated HP, public areas, unused rooms, and nighttime use; outputs this information on a charge calculation sheet to evenly divide power consumption charges among tenants.

Highlights

Web Access function

With the web access function, a PC, laptop computer or a smart phone can be used as a remote controller.

Energy Saving Management

Based on a predetermined schedule, the Intelligent Manager executes capacity control and intermittent operations on all air conditioning units to maintain a high comfort index.

Schedule Control

Automatically performs facility start/stop control, switches the operating mode, sets temperatures and enables/disables the remote control according to the present time schedule. 4 sections and 20 actions per day for each single unit or group.

Warning Message

The system can receive error messages from air conditioning units in more than one buildings o structures via public phone lines.

Visual Navigation

Clicking the jump button will display a list of all available screens. Clicking the back button will return to the previous screen.

Data Backup

The M-interface will automatically back up data on the installed SD card (2GB) in case system failure occurs, such as: power failure or system dam. IM software also stores the previous 3 months' operational data on the HDD.

Multiple Languages

Provides 7 language settings:

English, French, Italian, Russian, German, Spanish, Simple Chinese

Electricity Charge Distribution

Electricity charges can be easily divided when billing users for air conditioning power charges; for example, for tenants in a commercial building, offices in a rented building, or rooms in a hotel.

Accessories

Carrier
United Technologies
turn to the experts

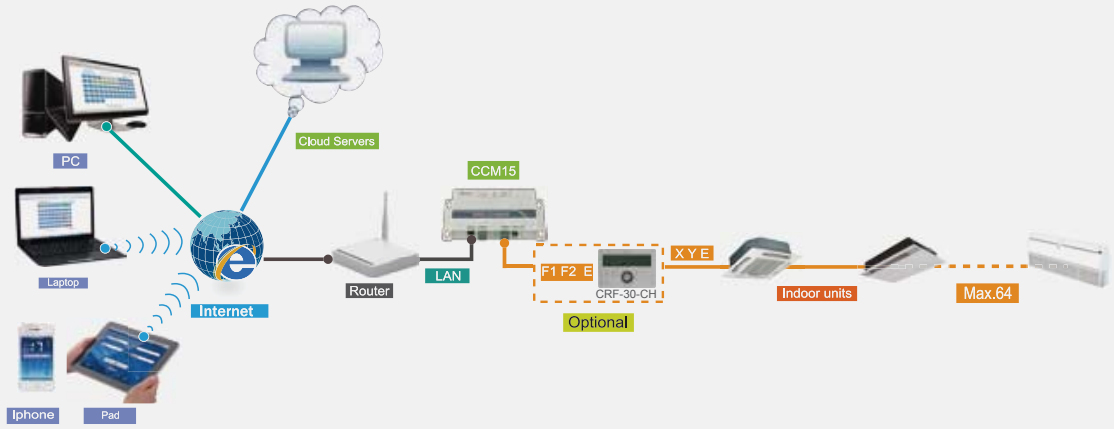
Accessories

Data converter
CCM15

- Can realize data conversion between TCP/IP protocol and 485 protocol.
- WEB function realizes VRF system's webpage access.
- Through LAN and remote to query and control the air conditioners.
- Providing the TCP / IP port for VRF system of to achieve WEB/HTTP/TCP/IP access.
- Can control and query the A/C systems through computer, iPhone, iPad or other intelligent terminals.

Network example

- Can be directly connected with XYE port of the indoor/outdoor units.
- Up to connect 64 indoor units.



Notes: when connection via XYE ports of master ODU, the ODU must be set to automatic searching address mode.

Simply control interface

- Software control/ Cloud server control (WEB access).
- Click & operate, a user-friendly interface.
- Allows single and group control.
- Simplified user control interface.
- Colour indication and icon makes it easy to recognize unit state.
- Can full screen display and temperature can be adjusted by fingers' sliding.

Weekly schedule control

- With weekly schedule function for iPad and Web function.
- Multiple sections in each day for single unit or group.
- Automatically performs facility start/stop control, operating mode, setting temperatures and according to the present time schedule.

Web features

- Query and control single unit or group.
- Weekly schedule setting: can set multiple sections in each day for single unit or group.
- History error: easy service and management with history error function.

Intelligent control

- The air conditioner remote control can be realized by mobile phone or tablet computer.
- You can query and control the running state of the air conditioner any time and any where and even make an appointment in advance.
- Can remotely turn off the air conditioner to avoid the power waste, when you are in a hurry to leave.

Accessories

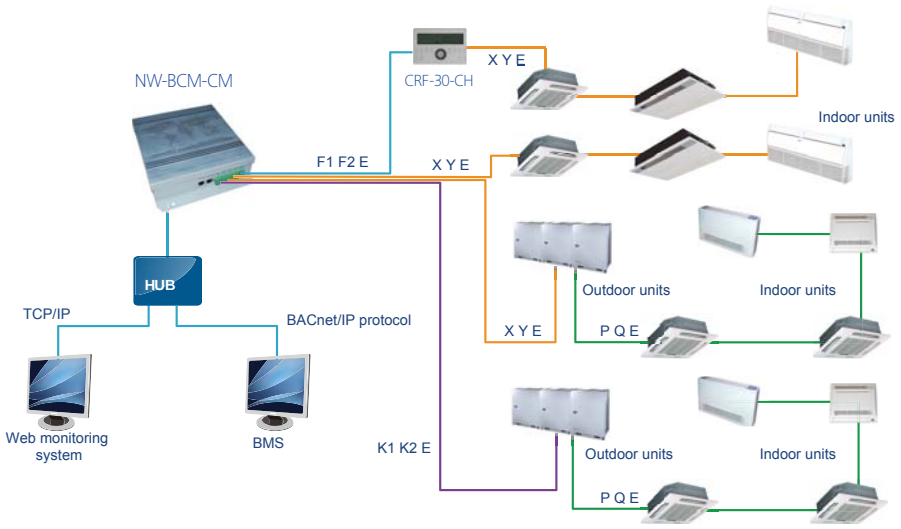
BACnet® BMS Gateway

NW-BCN-CM

Contains 4 groups of RS485 communication ports and be able to connect up to 256 indoor units or 128 outdoor units to the BMS. Be free to connect to the BMS or not.

Network example

Each port can be connected directly to XYE ports of IDU/ODU or the K1K2E ports of the outdoor units.



Notes: when connection via XYE ports of master ODU, the ODU must be set to automatic searching address mode.

Monitoring units online

NW-BCN-CM allows users to track units' operational status and change their running parameters on Internet Explorer for maximum control convenience.

Wide compatibility

NW-BCN-CM has a wonderful adaptability to the BMS.

	Company	BMS software	Brand
1	SIMENS	APOGEE	APOGEE
3	Honeywell	Alerton	ALERTON
4	Schneider	Andover	AndoverControls
5	Johnson	METASYS	METASYS

Accessories

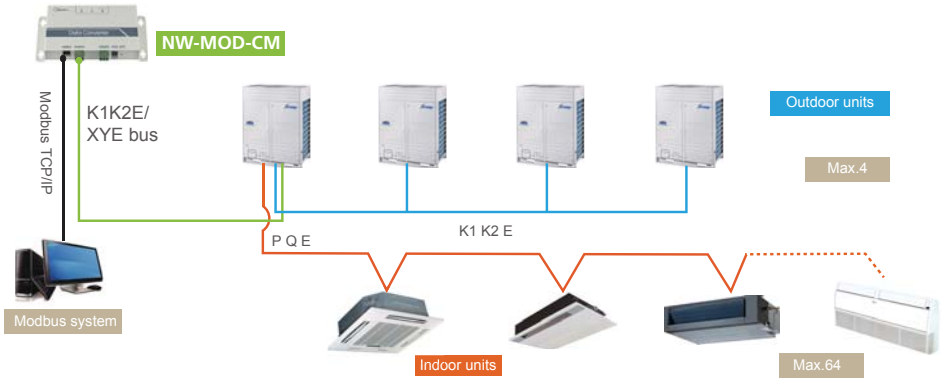
Modbus BMS Gateway

NW-MOD-CM

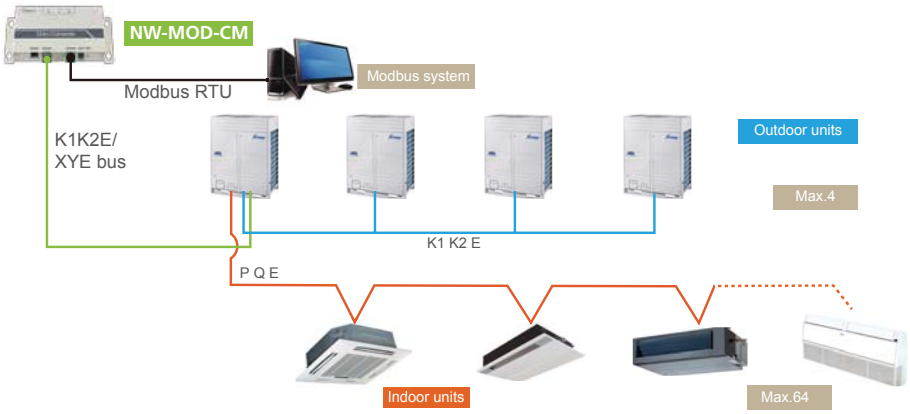
Supports Modbus protocol networks
Bridges the Midea central A/C system and the BMS
Connect up to 64 indoor units and 4 outdoor units for one system
Built-in WEB server function
Transfers data in RTU mode

Network example

1)TCP connection method



2) RTU connection method



Config A/C System via Web

When the Modbus network is set, users can conveniently configure their A/C network system over the Internet using different TCP/IP browsers.

Accessories

LonWorks® BMS Gateway
NW-LNWD-CM

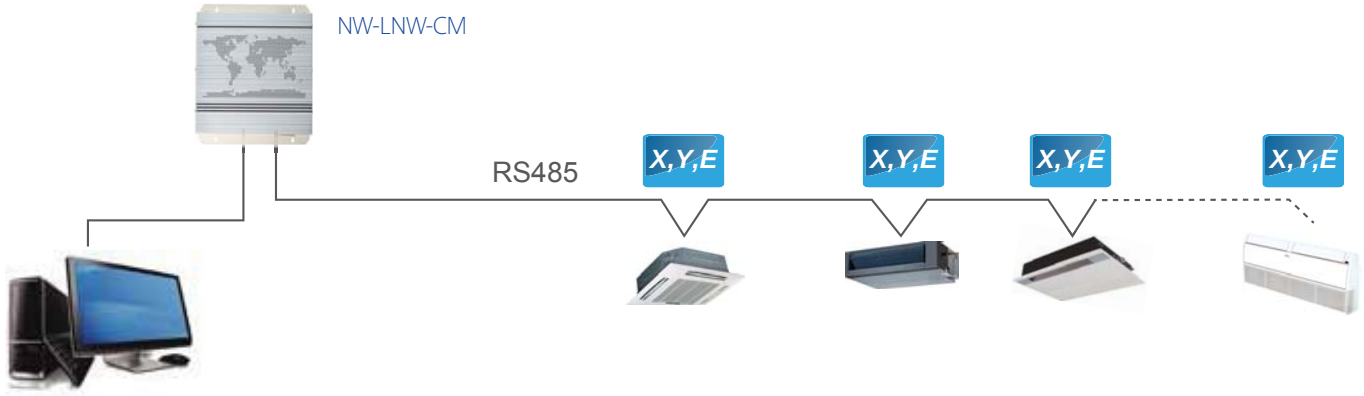
Compliance with LonMark protocol,and realizes the management and control of A/C.

Can connect up to 64 indoor units to the BMS.

Realizes non-polarity communication,and also the application can be download online.

Network example

Connection method 1: Suitable for all of air conditioner systems and connect max.64 indoor units.



BMS system

Specifications

Model	NW-LNWD-CM
Dimensions (H*W*D)(mm)	319×251×61
Power (V)	177~265V AC(50Hz/60Hz)

Accessories

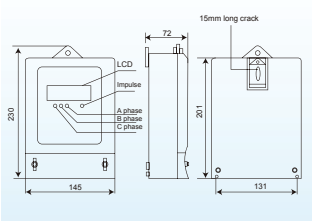
Digital Power Ammeter
CA-DT-S634

Calculates power consumption.
Does not need adjusting after long-term use.
Corresponds one outdoor unit to one digital power meter.

Low power consumption

The digital power meter consumes minimal energy.
Voltage circuit: less than 2W/10VA
Current circuit: less than 2.5VA

Indications and installation



The digital power meter is tested after manufacture so it can be immediately deployment and used on-site. The LED indicators and installation schematic are shown in the figure on the left.

Specifications

Model	CA-DT-S634
Dimensions (H*W*D)(mm)	230×145×72
Power (V)	200V-500V(50/60Hz)

Functions

Remote Alarm Controller
KJR-32B

Simple design

KJR-32B is specially designed for engineering applications. It does not display the ODU's working parameters, but it can connect to the alarm device when ODU is working abnormally, the RUN light will flash.

Specifications

Model	KJR-32B
Dimensions (H*W*D)(mm)	150×85×70
Power (V	198-242V(50/60Hz)

Accessories

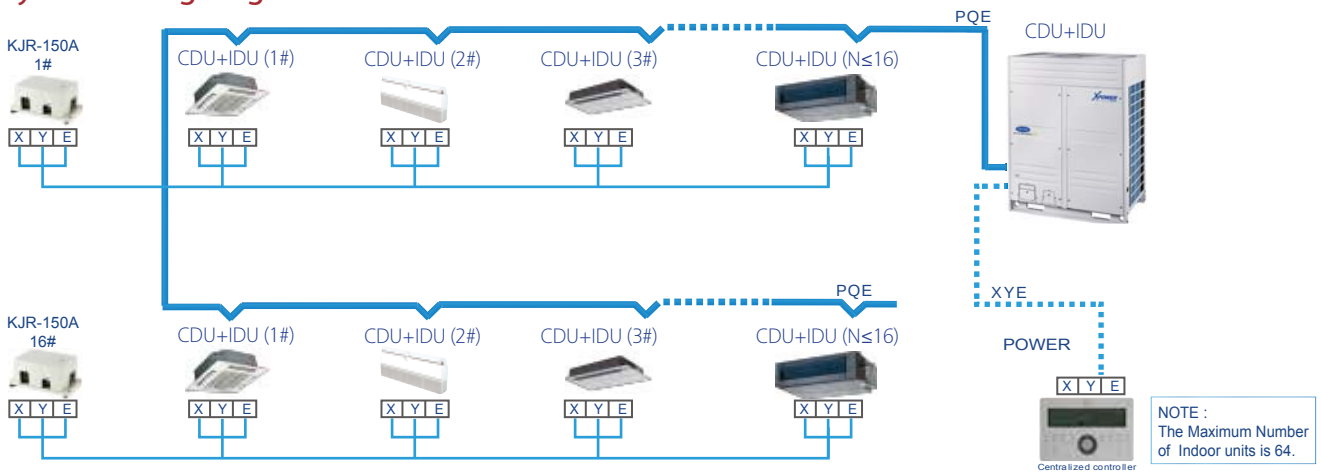
Indoor Unit Group Controller
KJR-150A

Functions

Simple design

KJR-150A is specially designed for V4 plus indoor units. A group controller can connect up to 16 V4 plus indoor units through XYE ports, but it cannot directly connect to the central controller. If you need to use a centralcontroller or a PC, you can connect to the XYE from an outdoor unit. A group controller can control a group of indoor units simultaneously, and query the running status of each unit in the group via the display panel.

System wiring diagram



Specifications

Model	KJR-150A
Dimensions (H*W*D)(mm)	150×85×70
Power)(V	198-242V(50/60Hz)

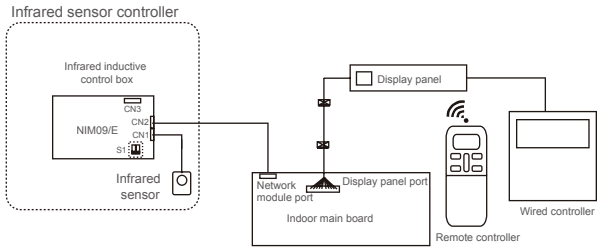
Accessories

Infrared sensor controller
NIM09

Automatically adjust the room environment.
Automatically extend the shutting down time, avoiding frequent ON/OFF.
Graceful appearance accommodates itself to different buildings.
Remote controller or wired controller can control indoor unit.

Installation example

Electrical wiring



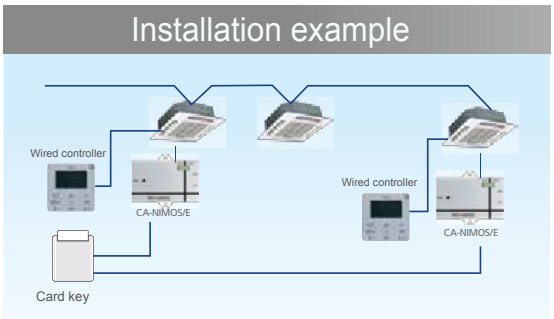
Specifications

Model	NIM09
Dimensions(H×W×D)(mm)	Senor part: 46×30×25.6, Control box: 86×72.8×15.5
Powe	DC 5V

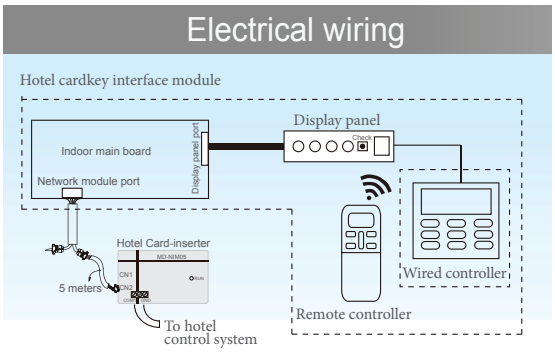
Hotel Card Key Interface Module
CA-NIMO5/E

Cooperate with the wired controller to automate control.
Eliminates the need for high voltage power, making the device safe and steady.
Includes a build-in auto-restart function.
Remote controller or wired controller can control indoor unit.

Installation example



Electrical wiring



Specifications

Model	CA-NIMO5/E
Dimensions (H*W*D)(mm)	86×72.8×15.5
Power (V)	DC 5V

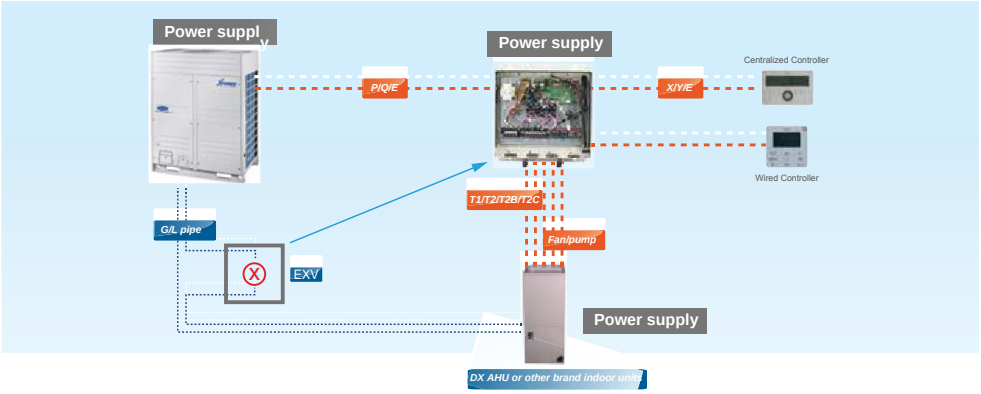
Accessories

AHU Control Box
AHUKZ-01A/AHUKZ-02A/AHUKZ-03A

Can be used to connect VRF outdoor units with DX AHU or other brand indoor units

Introduction

AHUKZ-01A/AHUKZ-02A/AHUKZ-03A is an independent control box that can connect a AHU to a VRF system to realize centralized control. Control box wiring is as follows:



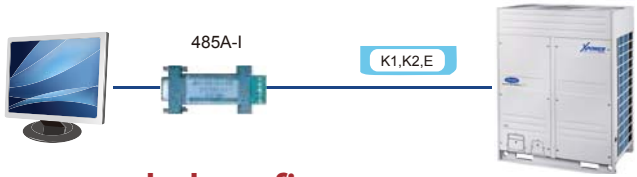
Specifications

Model	AHUKZ-01A/AHUKZ-02A/AHUKZ-03A
Dimensions(H×W×D)(mm)	335×375×150
Power (V)	220-240V~ 50Hz 208-230V~ 60Hz

Outdoor Unit Diagnosis Software
VRF-DIAG/E

Display the outdoor units' real-time running conditions.
Automatically outputs running status charts.

Wiring diagram



Recommended config

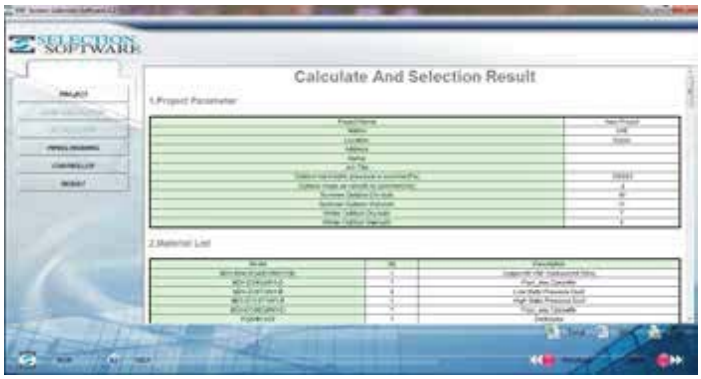
Operating system	WIN XP SP4/WIN 7
CPU	Pentium 4 2G or above
HDD	30G free space
Interface port	RS-232 terminal

Selection software

To meet consultants' and distributors' requirements, Carrier has developed an advanced design automation tool that can be used in AutoCAD-based CAD version or Windows-based Sales version. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

Windows Version

Load calculation: Provides two calculation methods (detailed room load calculation and rough load calculation).
Indoor & outdoor units selection: There are versatile indoor units and different outdoor units for choosing.
Piping drawing: Displays the detailed layout of an A/C system and the parameters for piping and branch distributors.
Controller selection: Provides a selection of controllers for indoor units and outdoor units, including wireless and remote controllers for indoor units.
Report output: Outputs a comprehensive selection report as a Word or PDF document.



Heat Recovery Ventilator

Carrier
United Technologies
turn to the experts

Heat recovery ventilator

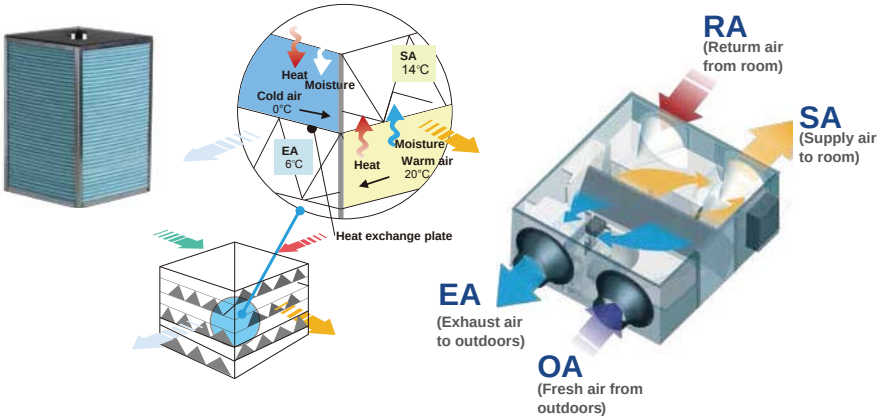
Larger air supply rate enhanced heat exchange efficiency enhanced energy saving property

The heat recovery ventilator (HRV) can reclaim heat energy lost through ventilation and reduce the room temperature fluctuation caused by ventilation process. By utilizing the most advanced technology and technics, HRV has extremely good performance. The heat exchanged core is made of special paper processed with chemical treatment, which could realize better temperature and humidity control of the room environment. Temperature exchange efficiency is above 65% and enthalpy exchange efficiency between 50-65%.

Model Names

HRV-200
HRV-300
HRV-400
HRV-500
HRV-800
HRV-1000

HRV-1500
HRV-2000

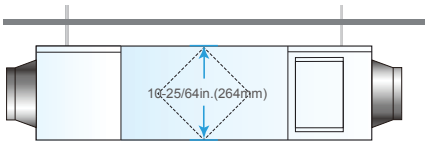


Low noise

Sound proof material is used to guarantee quiet operation.

Compact design, flexible installation and easy maintenance

With a min. height of only 10-25/64in.(264mm) and 50lbs (23kg) weight, the unit provides best convenience and possibility for installation in limited spaces.

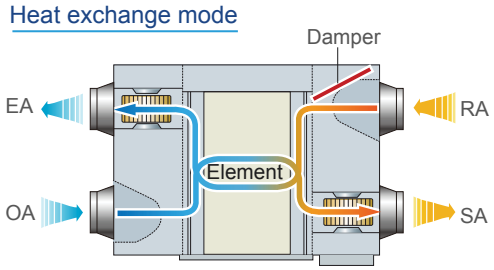


Multi-modes for different situations

Heat exchange mode

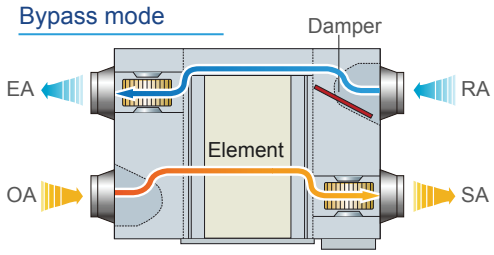
When air flow formed by the fans goes through the heat exchanged core in cross way, due to temperature difference between two channels of the core, thermal transmission happens naturally.

In summer days, high temperature outdoor air gets cooled by indoor exhaust air; in winter, low temperature outdoor air gets heated by indoor exhaust air. So the energy contained in exhaust air can be reclaimed and energy efficiency gets improved.



Bypass mode

In mild climate areas or seasons, when temperature and humidity level difference between indoor and outdoor is small, the unit works as conventional ventilation fan. Both supply fan and exhaust fan works at the same speed (Hi/mid/low/auto).



Air supply mode

It is one kind of bypass mode with air supply fan speed higher than exhaust fan speed. It can be used in mild climate area where large amount fresh air is needed.

Exhaust air mode

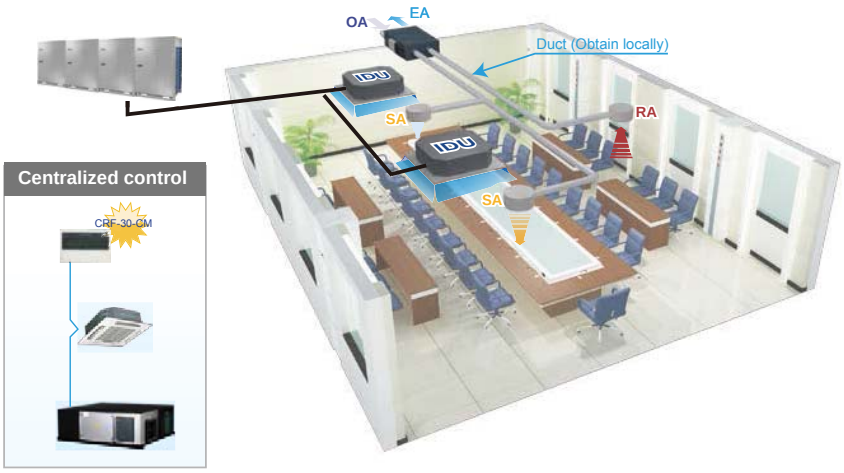
It is also one kind of bypass mode with exhaust fan speed higher than air supply fan speed. It can be used in mild climate area where large amount exhaust air needs to be expelled.

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoor and indoor temperature. Both the two fans work at low speed.

Flexible control

Interlocking control with other indoor units by controller is possible.



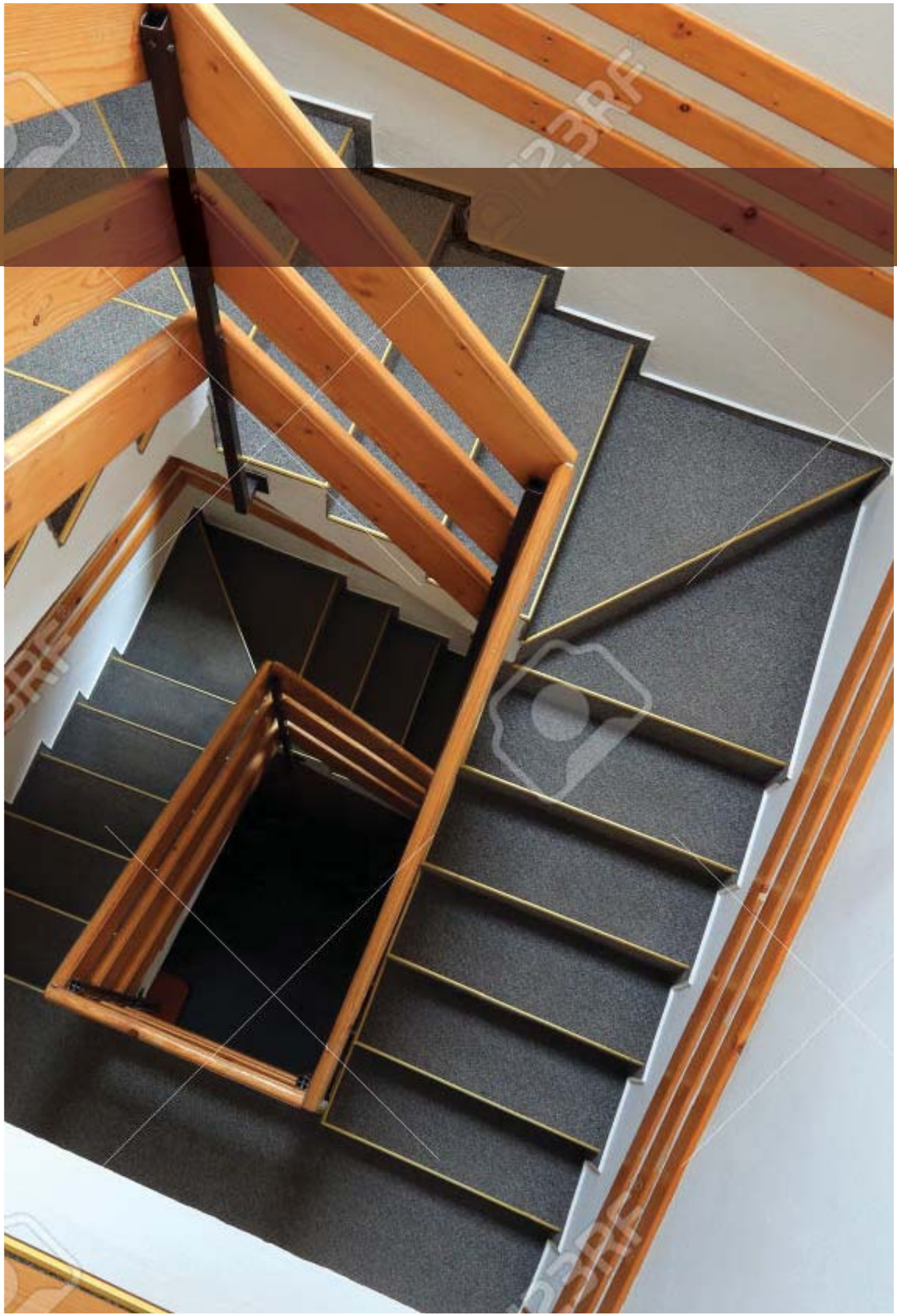
Specifications

Model			HRV-200	HRV-300	HRV-400	HRV-500
Power supply		V-Ph-Hz	220V-1Ph-50Hz			
Cooling	Temp. efficiency	%	60	60	60	60
	Enthalpy efficiency	%	50	50	50	50
Heating	Temp. efficiency	%	65	65	65	70
	Enthalpy efficiency	%	55	55	60	60
Indoorfan motor	Model		YDK-10-4992A1	YDK-20-4 992A2	YDK-40-4991A2T	YDK-60-4 991T
	Insulation class		B			
	Safe class		IP34			
	Input	W	20	40	80	120
	Capacitor	uF	1.5	2	3	3.5
	Speed	r/min	1050	1050	1150	1250
Indoor fan	material		ABS			
	Type		Centrifugal fan			
	Diameter	mm	Φ154	Φ194	Φ194	Φ203
	Height	mm	102	100	100	151
Indoor static pressure and air flow		$Pa/m^3/h$	75/200	75/300	80/400	80/500
Indoor external static pressure (Hi)		Pa	75	75	80	80
Sound pressure level		dB(A)	27	30	32	35
Indoor unit	Dimension (L×W×H)	mm	866×655×264	944×722×270	944×927×270	1038×1026×270
	Packing (L×W×H)	mm	960×770×445	1020×810×452	1020×1020×452	1120×1120×452
	Net/Gross weight	kg	23/40	26/44	31/52	41/64
Connection wiring	Power wiring	mm^2	2×2.5	2×2.5	2×2.5	2×2.5
	Signal wiring	mm^2	3×0.75	3×0.75	3×0.75	3×0.75
Controller			Wired controller			
Fresh air	Fresh Air Diameter	mm	Φ144	Φ144	Φ144	Φ194
	Air drop	Pa	75	75	80	80

Model			HRV-800	HRV-1000	HRV-1500	HRV-2000
Power supply		V-Ph-Hz	220V-1Ph-50Hz		380V-3Ph-50HZ	
Cooling	Temp. efficiency	%	60	60	60	60
	Enthalpy efficiency	%	50	50	50	50
Heating	Temp. efficiency	%	70	70	70	70
	Enthalpy efficiency	%	60	60	60	60
Indoorfan motor	Model		YDK-180-4990B1T	YDK-180-4 990A4T	SYB-250I (0.45-4)	SYB-250II (0.45-4)
	Insulation class		B			
	Safe class		IP34		IPX4	
	Input	W	360	360	450	450
	Capacitor	uF	8	10	-	-
	Speed	r/min	1350	1350	1350	1350
Indoor fan	material		ABS		metal	
	Type		Centrifugal fan			
	Diameter	mm	Φ245	Φ245	Φ234	Φ254
	Height	mm	203	203	253	285
Indoor static pressure and air flow		$Pa/m^3/h$	100/800	100/1000	160/1500	170/2000
Indoor external static pressure (Hi)		Pa	100	100	160	170
Sound pressure level		dB(A)	39	40	51	53
Indoor unit	Dimension (L×W×H)	mm	1286×1006×388	1286×1256×388	1600×1270×540	1650×1470×540
	Packing (L×W×H)	mm	1380×1100×573	1400×1370×573	1710×1410×720	1760×1610×720
	Net/Gross weight	kg	62/88	79/110	163/224	182/247
Connection wiring	Power wiring	mm^2	2×2.5	2×2.5	4×2.5	4×2.5
	Signal wiring	mm^2	3×0.75	3×0.75	3×0.75	3×0.75
Controller			Wired controller			
Fresh air	Fresh Air Diameter	mm	Φ242	Φ242	346×326	346×326
	Air drop	Pa	100	100	160	170

Note:

1. For the units model of HRV-200~HRV-1000, there are 3-speed adjustable air-volume (Hi, Med, Low), but for the units model of HRV-1500 and HRV-2000, there are only 1-speed air-volume which cannot be adjust.
2. For the units model of HRV-200~HRV-1000, all the parameters in the manual is measured at the high speed air-volume.



Branch Pipe

Carrier

United Technologies

turn to the experts

Branch Pipe

Branch joints of two-pipe refrigerant system

Model	Appearance	Model name	Packing Size (mm)/ Gross Weight (kg)	Description
Branch joint for 410A outdoor unit		BJC-02-CM	255×150×185/1,5	For two outdoor units connection
		BJC-03-CM	345×160×285/3,4	For three outdoor units connection
		BJC-04-CM	475×165×300/4,8	For four outdoor units connection
Branch joint for 410A indoor unit		BJF-224-CM (i)	290×105×100/0,4	A*<16.6kW
		BJF-330-CM (i)	290×105×100/0,6	16.6≤A*<33kW
		BJF-710-CM (i)	310×130×125/0,9	33kW≤A*<66kW
		BJF-1344-CM (i)	350×180×170/1,5	66kW≤A*<92kW
		BJF-E1344 (i)	350×180×170/1,5	92kW≤A*<150kW
		BJF-1500-CM	365×195×215/1,9	92kW≤A*
		BJF-QT4-CM		Indoor Branch Box 4 ways (mini VRF)

A*:The total capacity of indoor units which is connected to this branch joint

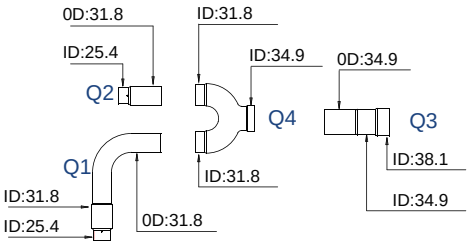
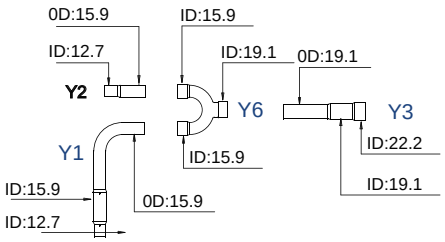
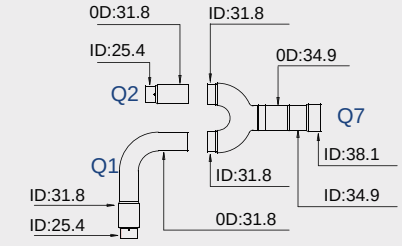
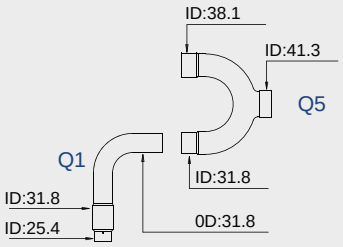
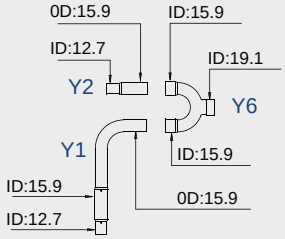
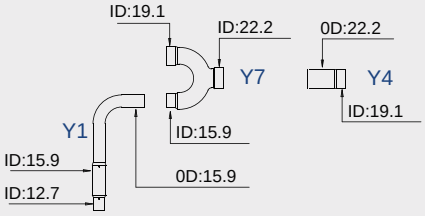
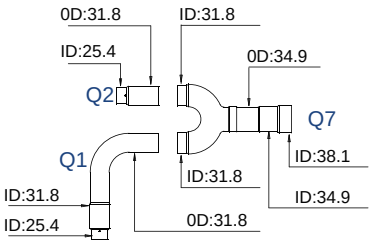
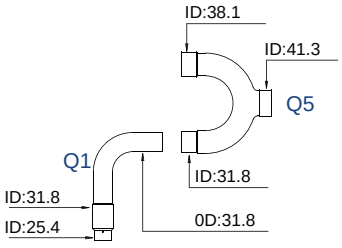
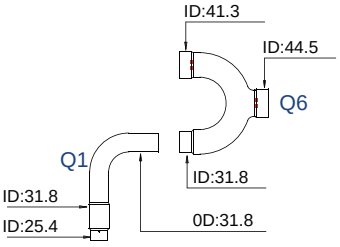
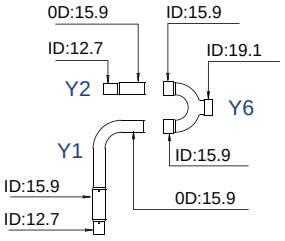
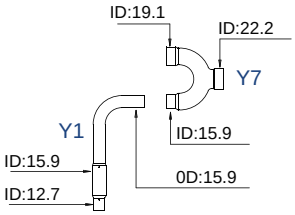
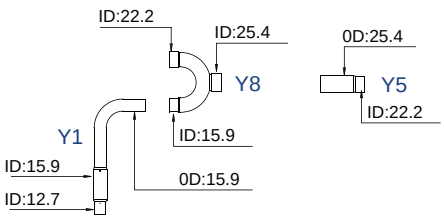
Branch joints of three-pipe refrigerant system

Model	Appearance	Model name	Packing Size (mm)/ Gross Weight (kg)	Description
Branch joint between outdoor unit		BJCT-02-CM(i)	272×167×232/2,2	For two outdoor units connection
		BJCT-03-CM(i)	472×157×312/5,0	For three outdoor units connection
		BJCT-04-CM(i)	745×160×335/7,5	For four outdoor units connection
Branch joint between MS unit and outdoor unit		BJFT-224-CM(i)	257×127×107/0,8	A*<16.6kW
		BJFT-330-CM(i)	287×137×107/0,9	16.6≤A*<33kW
		BJFT-710-CM(i)	297×167×177/1,4	33kW≤A*<66kW
		BJFT-1344-CM(i)	372×197×187/2,3	66kW≤A*<92kW
		BJFT-E1344-CM(i)	432×222×227/3,3	92kW≤A*

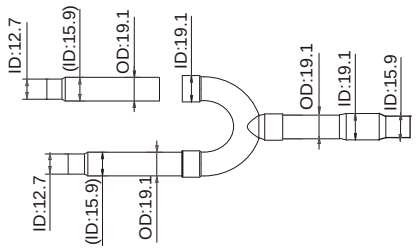
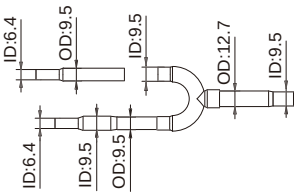
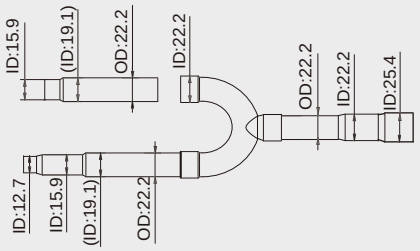
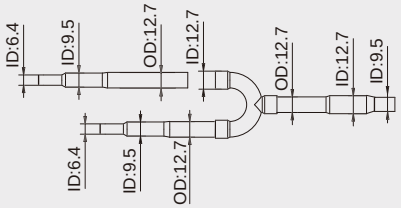
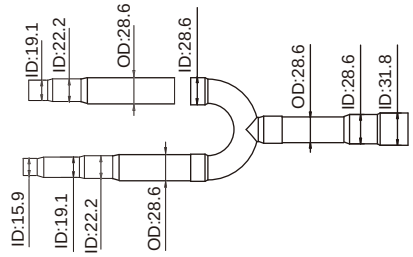
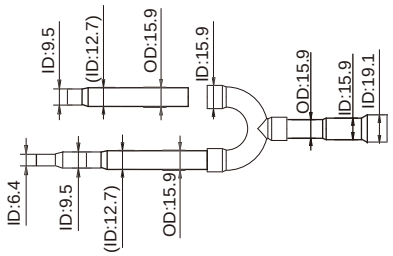
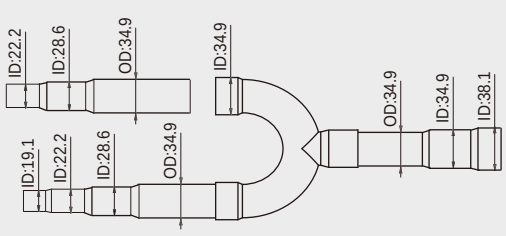
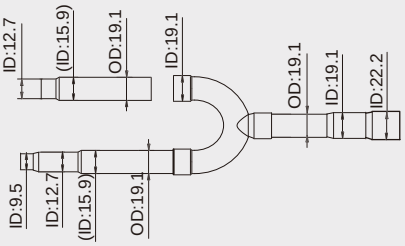
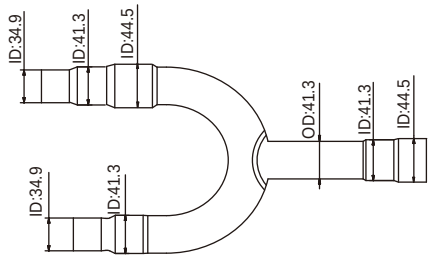
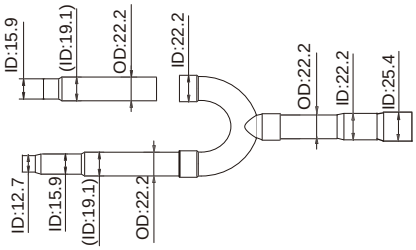
A*:The total capacity of indoor units which is connected to this branch joint

Dimensions

Outdoor branch joints

Branch model	Gas side joints	Liquid side joints
BJC-02-CM		
BJC-03-CM	 	 
BJC-04-CM	  	  

Intdoor branch joints

Branch model	Gas side joints	Liquid side joints
BJF-224-CM		
BJF-330-CM		
BJF-710-CM		
BJF-1344-CM		
BJF-1500-CM		

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